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April 12, 1979

Elizabeth S. Bowers, Esq., Chairman Atomic Safety and Licensing Board Panel U. S. Nuclear Regulatory Commission Washington, D. C. 20555 Mr. Glenn O. Bright
Atomic Safety and Licensing Board
Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dr. William E. Martin Senior Ecologist Battelle Memorial Institute Columbus, Ohio 43201

In the Matter of
Pacific Gas and Electric Company
(Diablo Canyon Nuclear Power Plant, Units Nos. 1 and 2)
Docket Nos. 50-275 O.L. and 50-323 O.L.

Dear Members of the Board:

On April 10, 1979 an inadvertent error was committed in improperly designating the Staff's Proposed Findings "Initial Decision". The words Initial Decision should be changed on both the cover page and first page to read Staff's Proposed Findings and Conclusions of Law. Enclosed are copies of those two pages which you may substitute.

Sincerely,

Enclosures

James R. Tourtellotte Assistant Chief Hearing Counsel

cc (\(\psi \) encl):
Philip A. Crane, Jr., Esq.
Mrs. Elizabeth Apfelberg
Mrs. Raye Fleming
Mr. Federick Eissler
Mrs. Sandra A. Silver
Mr. Gordon Silver
Richard B. Hubbard
Paul C. Valentine, Esq.
Yale I. Jones, Esq.
John R. Phillips, Esq.
David F. Fleischaker, Esq.
Arthur C. Gehr, Esq.

John Marrs
Atomic Safety & Licensing Board Panel
Atomic Safety & Licensing Appeal Panel
Docketing and Service Section

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orrighta James O. Schuyler	19442444244 4
Bruce Norton	'
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UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

PACIFIC GAS AND ELECTRIC COMPANY

(Diablo Canyon Nuclear Power Plant Units Nos. 1 and 2)

Docket Nos. 50-275 O.L.

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NRC STAFF'S PROPOSED FINDINGS
AND CONCLUSIONS OF LAW

James R. Tourtellotte Assistant Chief Hearing Counsel

Marc R. Staenberg Counsel for NRC Staff

Edward G. Ketchen Counsel for NRC Staff

April 10, 1979

Secretary of • • 1 •

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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I. Introduction

This Initial Decision considers the application by the Pacific Gas and Electric Company (the Applicant or PG&E) for facility operating licenses to authorize the operation of the Diablo Canyon Nuclear Power Plant, Units 1 and 2 (the facility). The facility consists of two pressurized water nuclear reactors located on Applicant's site in San Luis Obispo County, California.

The United States Atomic Energy Commission issued on October 10, 1973, a "Notice of Receipt of Application for Facility Operating Licenses; Notice of Consideration of Issuance of Facility Operating Licenses and Notice of Opportunity for Hearing."

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FRID & GET - 50-275, 323 or

Lucker Egulartony Commission from writing this letter to voice strong, opposition to allowing the Dablo langon plant to begin operation It seems inconscionable to hie Hat you would place sceneric gain by large sower companier above the Kathi and welfare of the public.
I strongly europe your
Commission to stop finite langer and make the liver of of people Safe Opridental, Ca.

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STATE OF THE ARMS AND STATE OF THE STATE OF

THOMAS H. BATES
MERCHAGE OF THE ASSEMBLY
TWELFTH DISTRICT

CHARMAN

SUBCOMMITTEE ON FINAL HEALTH AND

DEVELOPMENTAL DISABILITIES

April 5, 1979

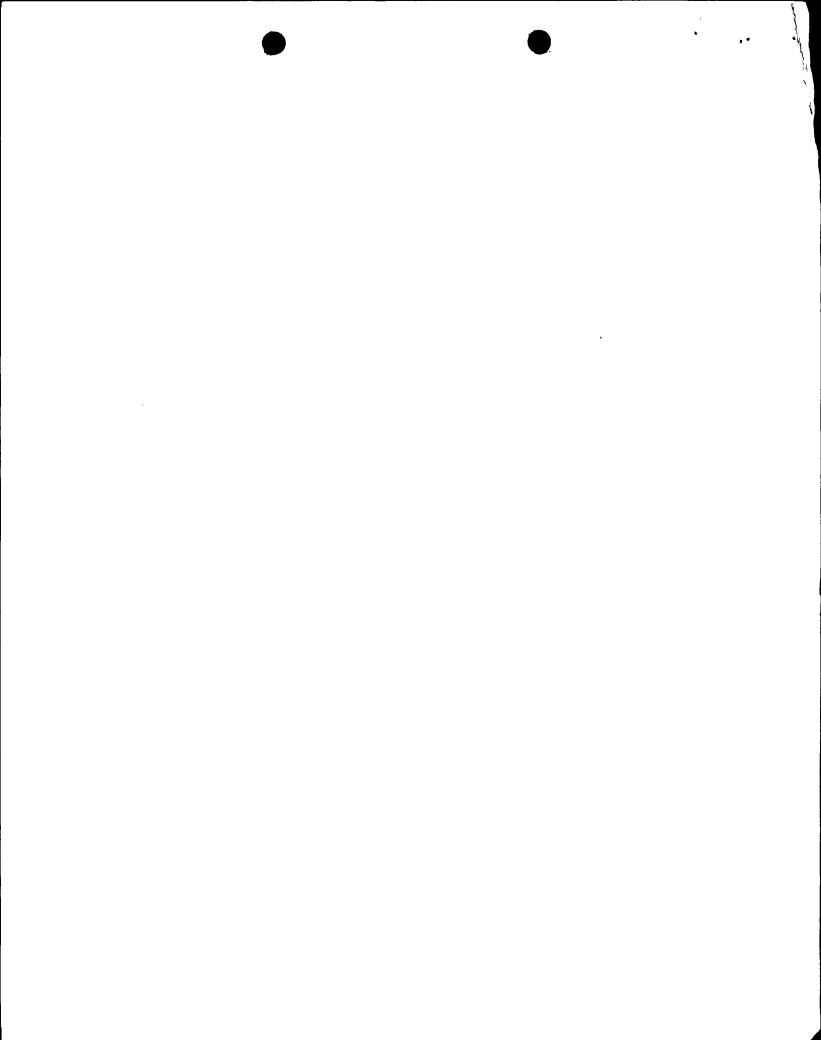
Mr. Joseph Hendrie Chairman U.S. Nuclear Regulatory Commission Washington, D. C. 20555

Dear Chairman Hendrie:

The recent events at the Three-Mile Island Nuclear Plant in Harrisburg, Pennsylvania, have cast serious doubts about the validity of safety procedures and safeguards at nuclear plants. The public has, in the past, been given assurances by utility companies, the nuclear industry, and the Nuclear Regulatory Commission that the problems that occurred at Harrisburg were highly unlikely, if not impossible. In addition, the recent repudiation of the Rasmussen Report with regard to the probabilities of nuclear accidents also calls into question the basis on which previous decisions of the nuclear industry have been made. The public is at present greatly alarmed about the potential consequences of serious nuclear accidents and many people, including members of this Legislature, are re-examining their attitudes about nuclear power.

This situation casts new light on the current controversy with regard to the licensing of the Diablo Canyon nuclear reactor. There have been many serious questions raised with regard to plant safety, particularly concerning the seismic hazards at the plant. We have heard conflicting reports with regard to plant design and safety assurances and conflicting reports regarding the manner in which the Nuclear Regulatory Commission arrived at its decision to approve the plant. A plant which is located 2-1/2 miles from an earthquake fault capable of a shock





Mr. Joseph Hendrie Page 2 April 5, 1979

of 7.5 on the Richter scale must be absolutely and conclusively safe before it begins operation. Attempts during the process of approval to underplay the seriousness of the fault casts doubt on the assurances we have heard so far with regard to plant safety.

In light of the above, we, the undersigned members of the California Legislature, believe that the Nuclear Regulatory Commission should postpone the granting of a license to operate the Diablo Canyon Nuclear Plant. We believe that there are enough serious questions about the safety of this plant which, taken with the current situation, warrant a delay in the licensing until such time as the public receives additional strict assurances about the safety of the plant.

Sincerely,

The state of the state of

THOMAS H. BATES
Member of the Assembly

LAWRENCE KAPILOFF Member of the Assembly

MIKE GAGE Member of the Assembly

ART AGNOS Member of the Assembly

HOWARD L. BERMAN Member of the Assembly

WILLIE BROWN, Jr.

ART TORRES
Member of the Assembly

ELIHU M. HARRIS Member of the Assembly

DOUGLAS H. BOSCO Member of the Assembly

TERRY GOGGIN Member of the Assembly

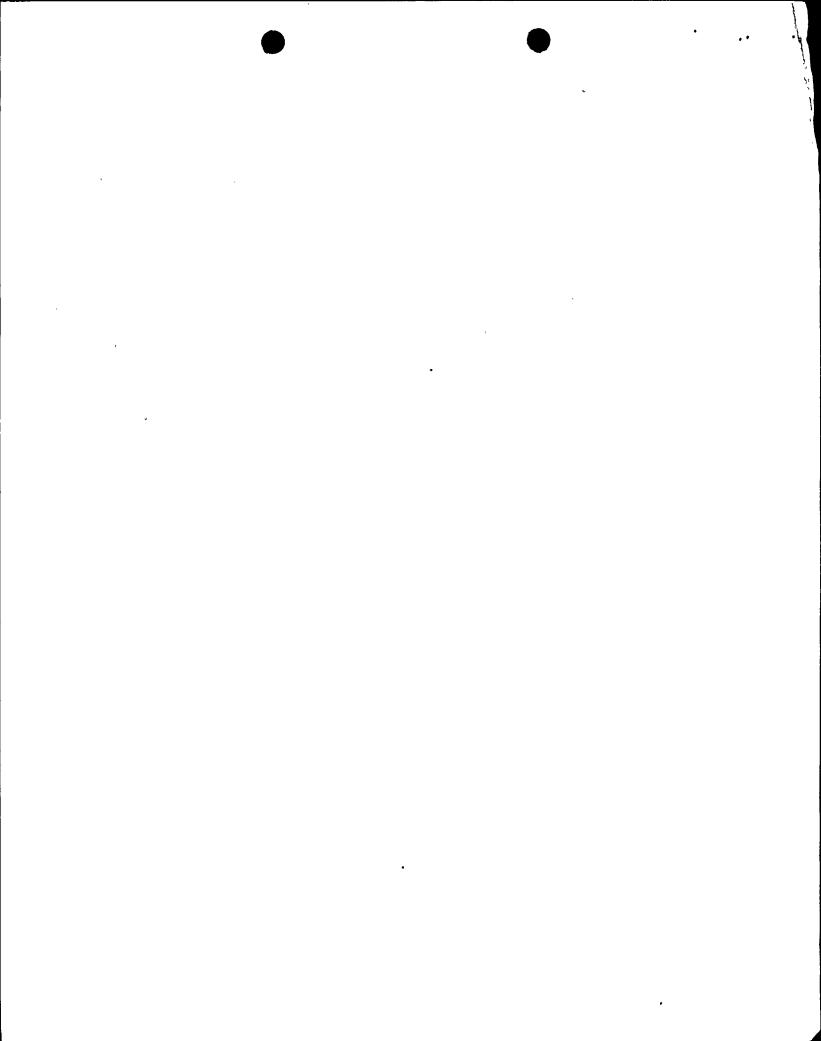
* RICHARD ALATORRE Member of the Assembly

GWEN MOORE Member of the Assembly

SALLY TANNER

HERSCHEL ROSENTHAL Member of the Assembly

RICHARD HAYDEN
Member of the Assembly



TERESA P. HUGHES
Member of the Assembly

MAXINE WATERS Member of the Assembly

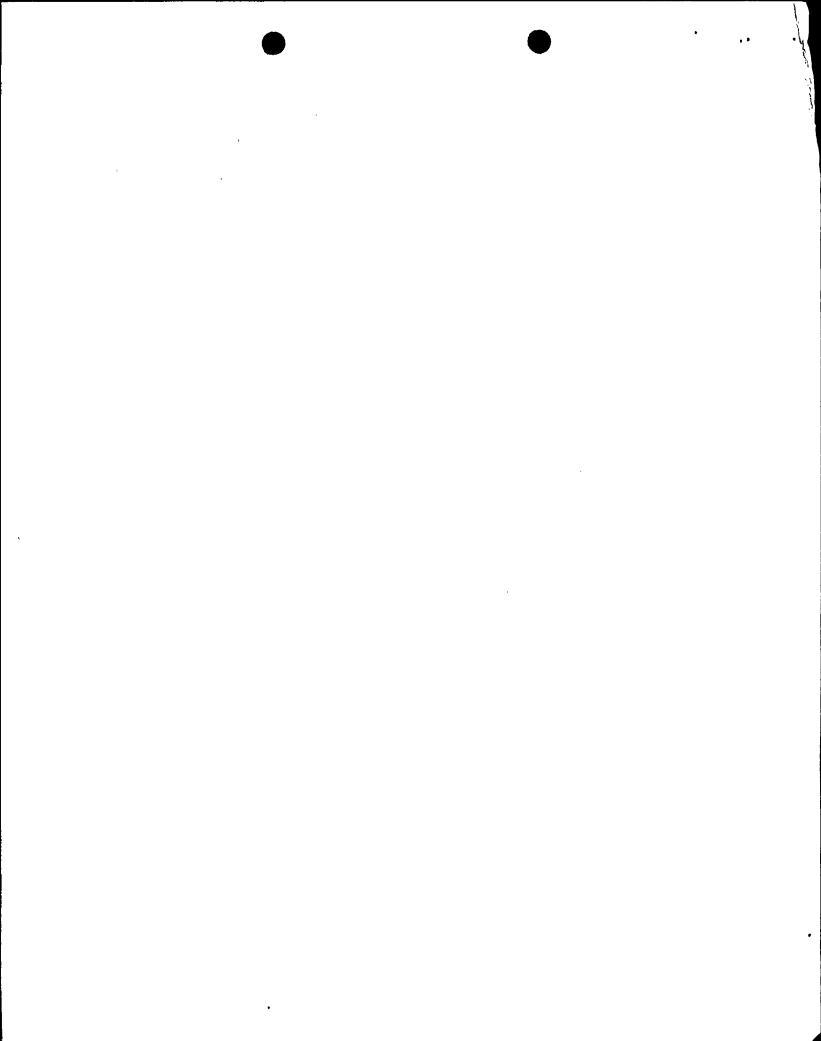
JIM COSTA

Member of the Assembly

LEONA EGELAND
Member of the Assembly

JOHN VASCONCELLOS

Member of the Assembly



2470 RAYBURN OFFICE BUILDING WASHINGTON, D.G. 20515 (202) 225-2611

DISTRICT OFFICES: BISMARCK, NORTH DAKOTA 53501 (701) 253-4648

FARGO, NORTH DAKOTA 58102 (701) 232-2030

GRAND FORKS, NORTH DAKOTA 58201 (701) 775-9801

> MINOT, NORTH DAKOTA 58701 (701) 352-2510

MARK ANDREWS
North Dakota

COMMITTEE ON APPROPRIATIONS

SUBCOMMITTEES;

AGRICULTURE AND RELATED AGENCIES

STATE, JUSTICE, COMMERCE AND JUDICIARY

Congress of the United States House of Representatives Mashington, D.C.

भरतान सम्भवति १च्यात् १ प्राप्तः १४० <u>५० ५० ५० ५५</u> ३३ ०४

March 23, 1979

Department of Energy Congressional Liaison Washington, D.C. 20461

Dear Sirs:

Please find enclosed a copy of a letter from Susan D. Lenaburg, a constituent of mine, dealing with the construction of two nuclear power plants in Diablo Canyon, which is an extremely earthquake prone area of California.

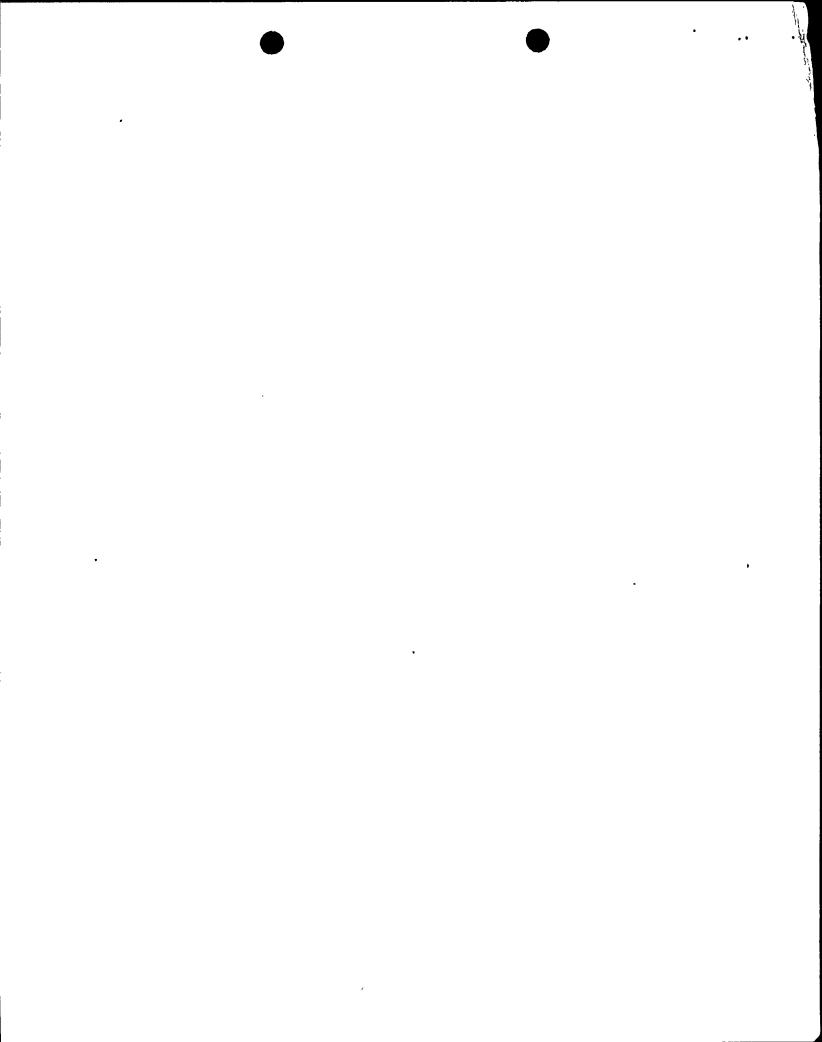
I would appreciate any information you could provide me with concerning this matter.

Thank you for your assistance.

Warm regards.

Sincerely,

MARK ANDREWS Congressman for North Dakota MA/rg



878 - 878 - T

March 13, 1979

Hon. Mark Andrews 3 & Rosser Bismarck, North Dakota 58503

Dear Mr. Andrews:

There is something taking place in Southern California that I feel you should be aware of, if you are not already.

I realize that you are a Pepresentative from North Dakuta, but this situation concerns not only us, but the rest of the United States.

I am referring to the construction of two nuclear power plants in Diable Canyon, an area halfway between San Francisco and Los Angeles, an area of the "Pacific Pelt" where 95 out of 100 earthquakes occur.

Pacific Gas and Electric, the company building the plants, claim that these structures could withstand a shock of 6.7 on the Richter scale. However, it was discovered that there is an active fault, Hosgri, only 2½ miles offshore. Geologists believe that this fault is capable of causing a quake that would be larger than the nuclear power plants could withstand.

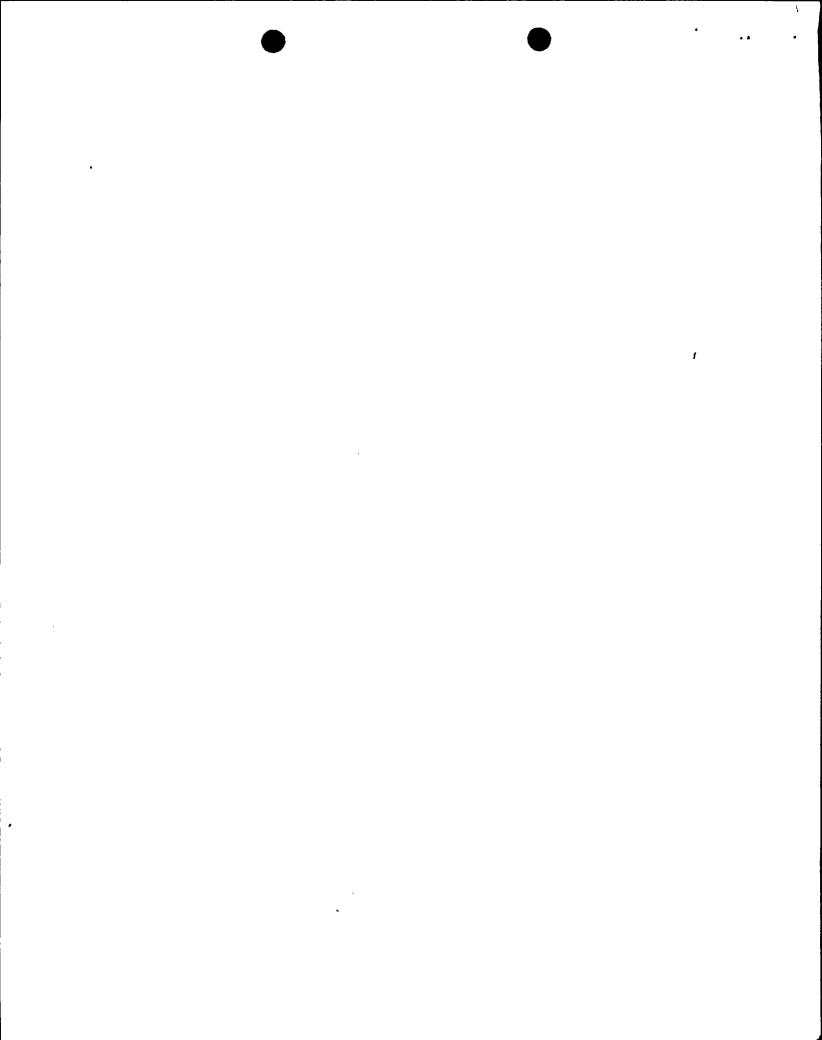
A fractured nuclear plant, caused by an earthquake, would create an incredible steam explosion that would spread radio-activity in a wide path across California. I think that we are both aware that radiation causes death or lasting injury.

Our desperate plight is apparent, Mr. Andrews. I hope that you will use your influence with your fellow Representatives and the United States Senators in Congress. I certainly would like to see my graduation from high school in 1982.

I will be waiting for your reply.

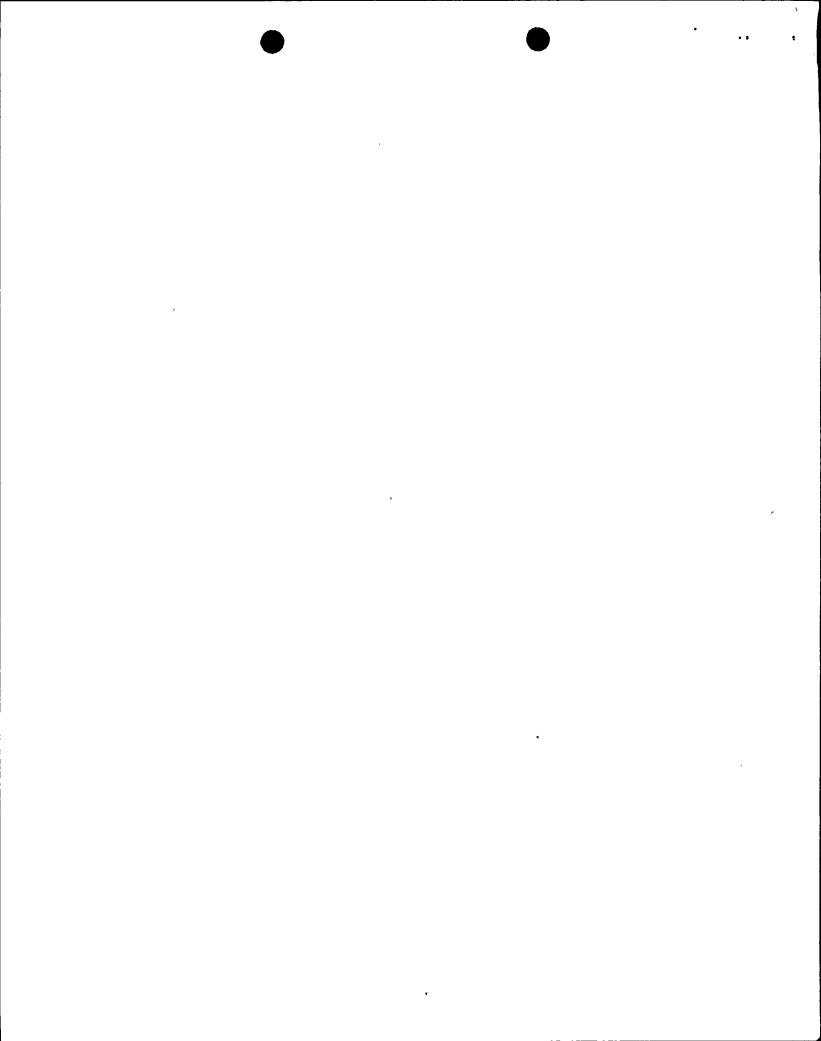
Susan D. Lenaburg V.C.H.S. Freshman

Valley City, North Dakota 58072



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THE COMPANY OF STREET	(Stop Diablo Canyon Nuclear plant).
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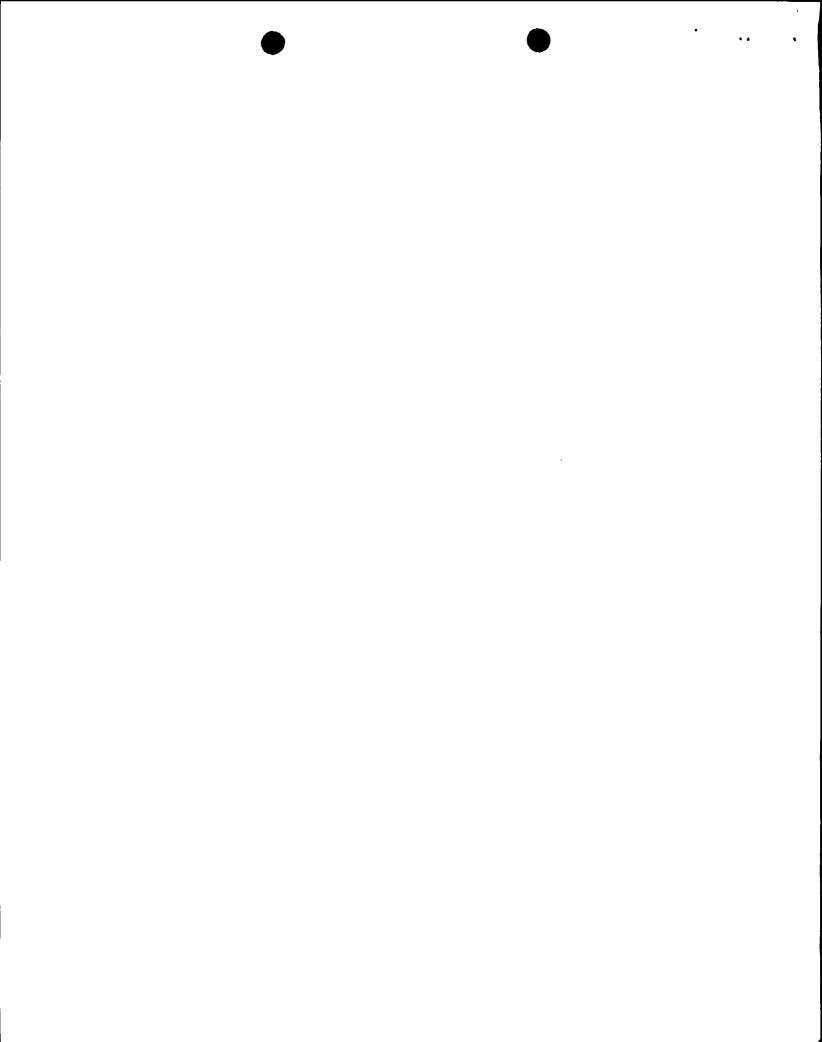
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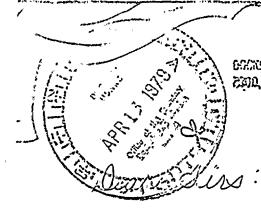
I would like to express
my opposition to the opening
of the nuclear power
plant now under construction
in Oiables Canyon, How can
the public safety be
guarenteed when the plant
is located next to an
active earthquake facilit?
And how can the extremely
dangerous waste products
be disposed of safely?
Since your agency is
responsible for these
nuclear facilities, I would
appreciate are answer to

A vistuese questions.

Thank you

316 Encino Ln., Ventura Ca 93001



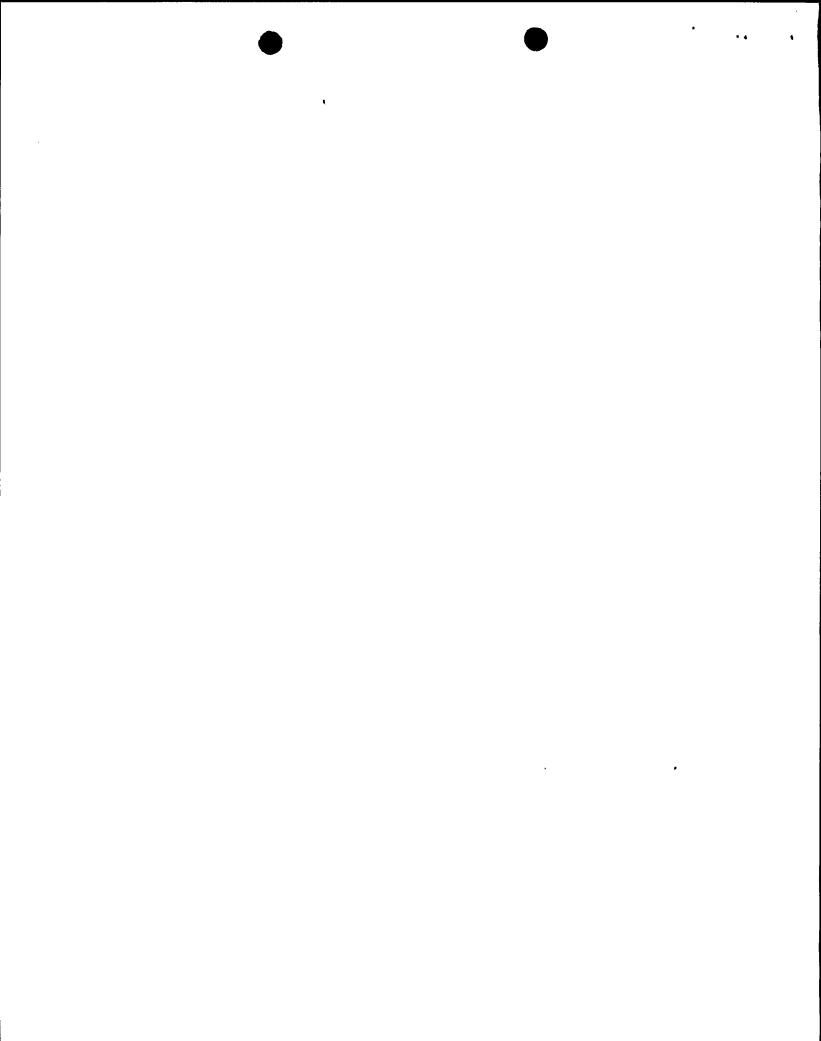


EXECUTE REMER EXPL & WIL FEC 50 - 227-222 OL March 31, 1979

Please Stop the construction of the Diable Canyon Power Plant.

We feel it may be dangerous ours and our future children's realth.

gon+ Paula Reynolds 1201 S. Dilbert #7 Fullerton, Ca 92633



Joseph Compose Ct 93436 H-J-79 Julian Muclean Regulatory

Tederal Mieleau Regulatory. Commence. 1990 With California Blood. Suite 202 Walnut Creek, Ca 94596

Dear Seis:

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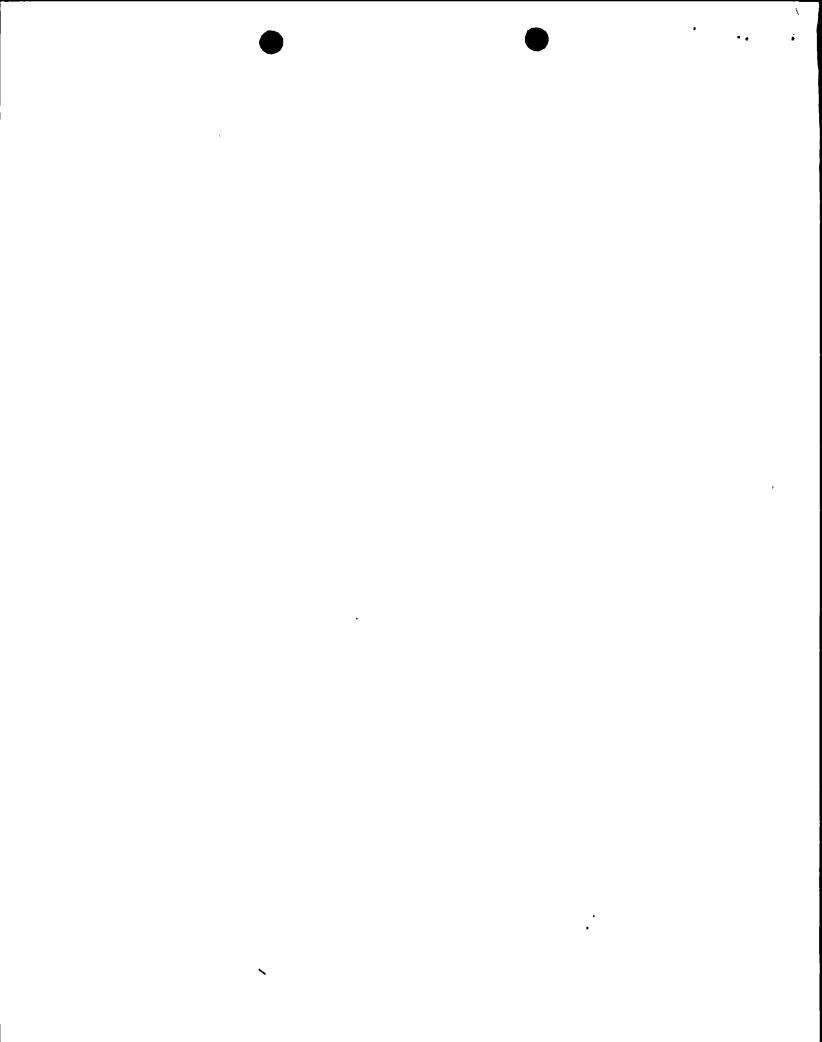
My personel heartfelt plea

That the clearle Canyon Muclear

Pawer Plant project be
Râlted slong with all ather

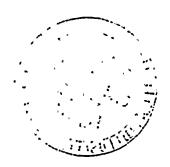
Muclear power development
in the state.

Very conserved,



Director, NRC

Coar Sir:



am concerned with the possible licensing at the Diablo Canyon Nuclear Fower plant. Time and time again it has been shown and prever that Muclear Jones plants are unsate and uneconcern. The Liabor. Conyon plant because it its location, is initing catastrophe.

Paliation can't be undone. Please help stop the plant before it has a chance to horm us air.

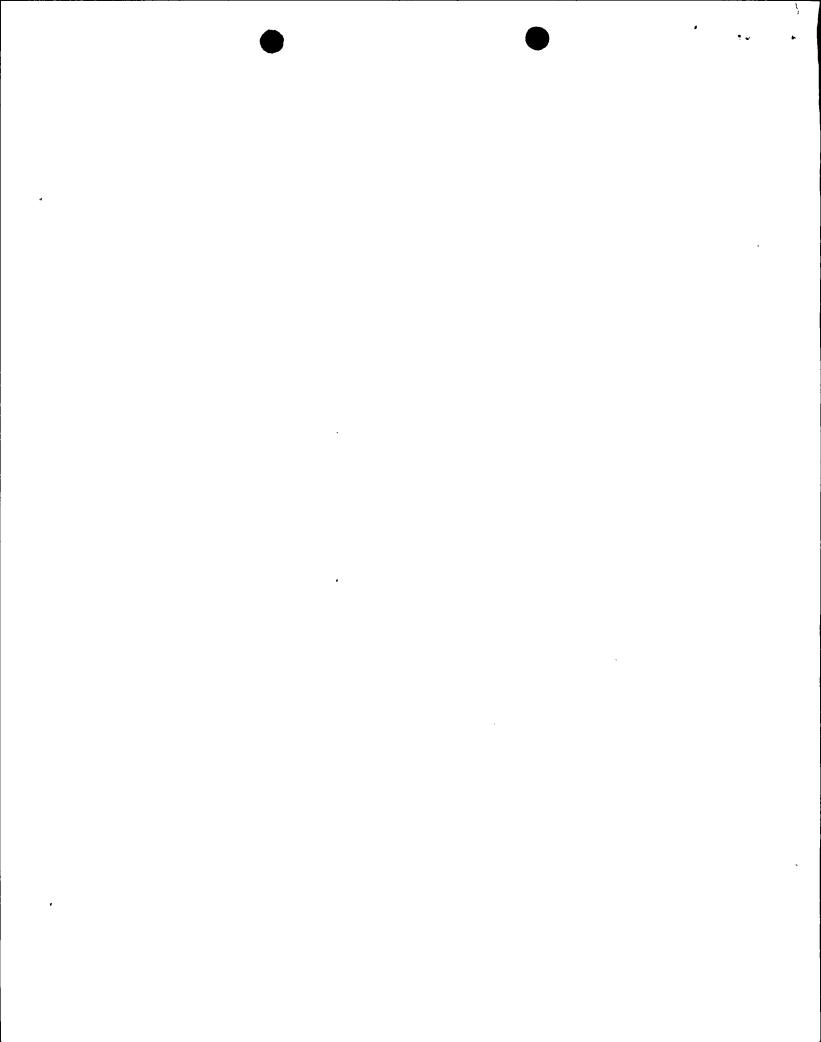
Conservation is a far more rational solution to our energy problems.

Trant you for listening.



Sincedy yours, Land J. Kann

DAVID J. KAMERER 118 SUNNYSIDE AVE SANTA CRUZ, CALIF , 95062.



To: Federal Nuclear Regulatory Commission,

Although I am not a resident of California, I feel compelled to express my dire concerns involving the operation of the Diablo Canyon Nuclear Power Plant in San Luis Obispo.

It is evident that if the Hosgri fault had been detected prior to the construction of the plant the reactors would have never been built. Now, the Hosgri fault is well documented as a large, active earthquake fault and does pose an undue risk to the public, being only $2\frac{1}{2}$ miles offshore from the two nuclear reactors.

In the past you have taken a very responsible stand on the proliferation of nuclear technology. I sincerely urge you to use your executive powers in the intervention of Diablo Canyon, if it is granted an operating license. The people of California, specifically the 50,000 residents living within 12 miles of the nuclear reactors, have a lot more to lose -- in human life, if there is an earthquake on the Hosgri fault, than does Pacific Gas and Electric Co., by not being allowed to operate the plant.

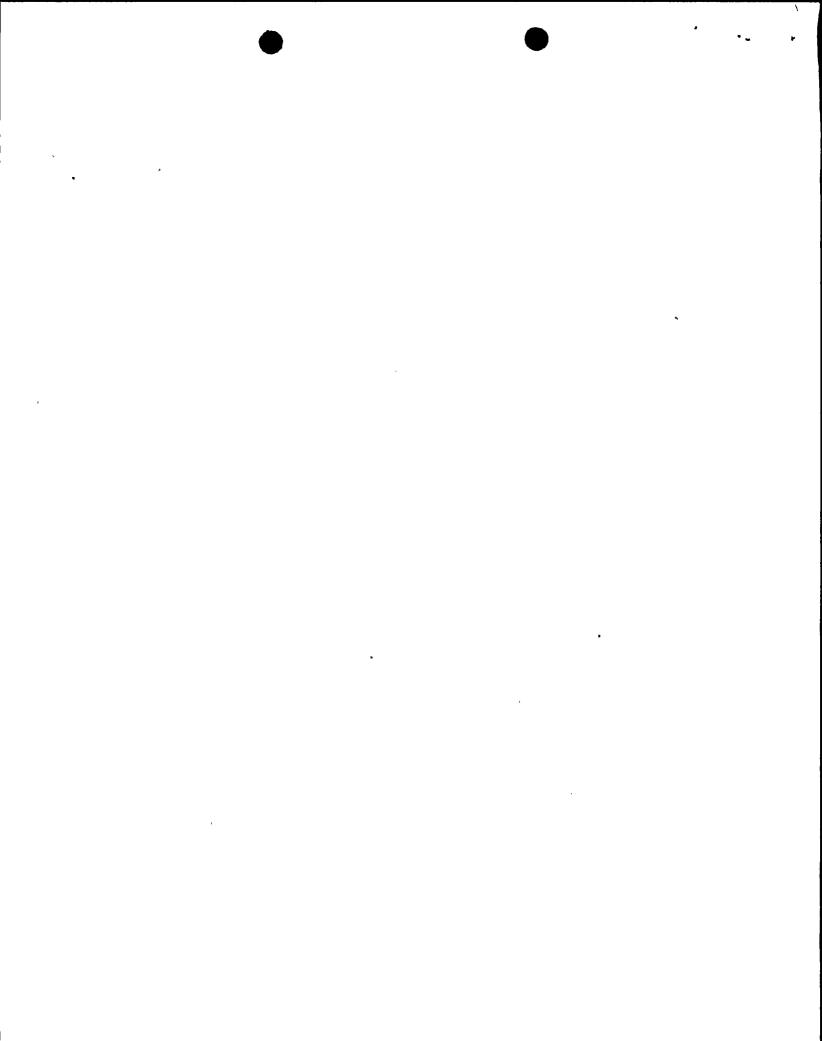
Once again, we in our technologically sacred society, are faced with the decision of choosing the safety of people or the risks and profits of a large private corporation such as, Pacific Gas and Electric Co. Unfortunately the answer to this question is not as obvious as a humanist might hope. Please chose LIFE -INTERVENE AT DIABLO CANYON and maintain cur faith in you and our government of the people -- for the people -- for the people.

Sincerely in Peace,

Write: Federal Regulatory Commission
1990 North California Blvd. Suite 202

Walnut Creek, California 94596

Boston, Mass



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UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

In the Matter of	>	
PACIFIC GAS AND ELECTRIC COMPANY		-275 -323
(Diablo Canyon Nuclear Power Plant, Units 1 and 2)) }	723
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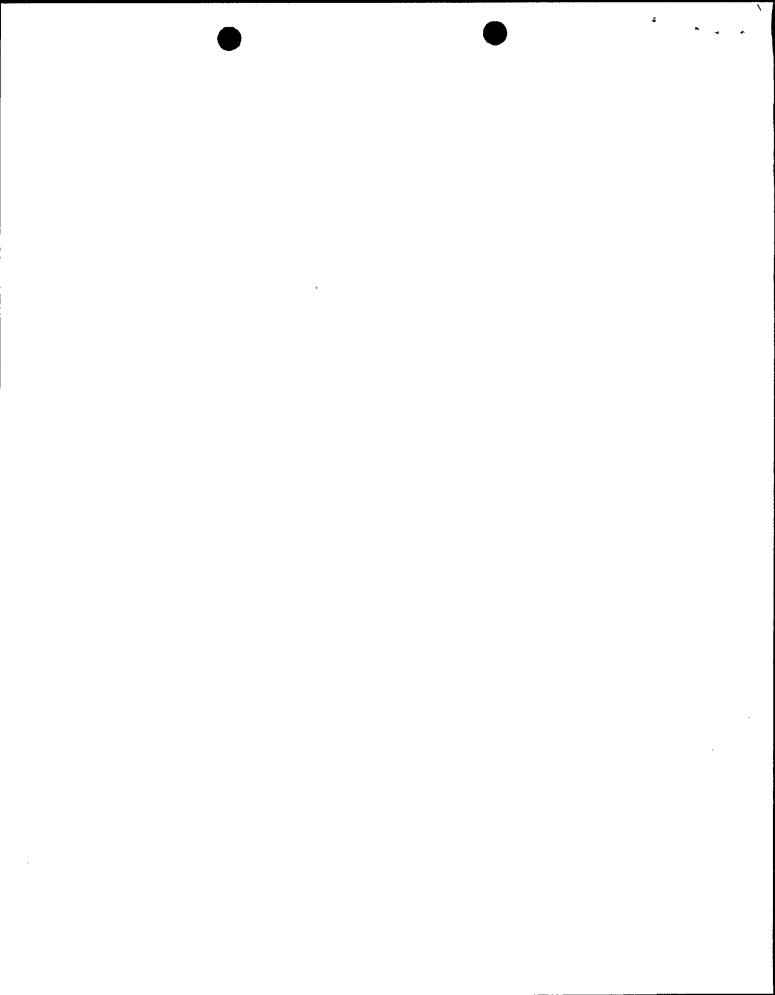
CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document(s) upon each person designated on the official service list compiled by the Office of the Secretary of the Commission in this proceeding in accordance with the requirements of Section 2.712 of 10 CFR Part 2 - Rules of Practice, of the Nuclear Regulatory Commission's Rules and Regulations.

Dated at Washington, D.C. this

/// day of ///// 1979

The of the Secretary of the Commission



UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

In the Matter of)

PACIFIC GAS AND ELECTRIC COMPANY) Docket No.(s) 50-275

(Diablo Canyon, Units 1 and 2))

SERVICE LIST

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Mr. Glenn O. Bright Atomic Safety and Licensing Board U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Dr. William E. Martin Senior Ecologist Battelle Memorial Institute Columbus, Ohio 43201

Counsel for NRC Staff
Uffice of the Executive Legal Director
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Philip A. Crane, Jr., Esq. Pacific Gas and Electric Company 77 Beale Street - Room 3127 San Francisco, California 94106

Mrs. Elizabeth Apfelberg 1415 Cozadero San Luis Obispo, California 93401

Janice E. Kerr, Esq. California Public Utilities Commission 5246 State Building San Francisco, California 94102

Mrs. Raye Fleming 1920 Mattie Road Shell Beach, California 93440

Bruce Norton, Esq. 3216 North Third Street, Suite 202 Phoenix, Arizona 85012 Mr. Frederick Eissler Scenic Shoreline Preservation Conference, Inc. 4623 More Mesa Drive Santa Barbara, California 93105

Mrs. Sandra A. Silver 1760 Alisal Street San Luis Obispo, California 93401

Mr. Gordon A. Silver 1760 Alisal Street San Luis Obispo, California 93401

Paul C. Valentine, Esq. 321 Lytton Avenue . Palo Alto, California 94302

Yale I. Jones, Esq. 100 Van Ness Avenue - 19th Floor San Francisco, California 94102

Brent Rushforth, Esq. Center for Law in the Public Interest 10203 Santa Monica Drive Los Angeles, California 90067

David F. Fleischaker, Esq. 1025 - 15th Street, N.W. Washington, D.C. 20005

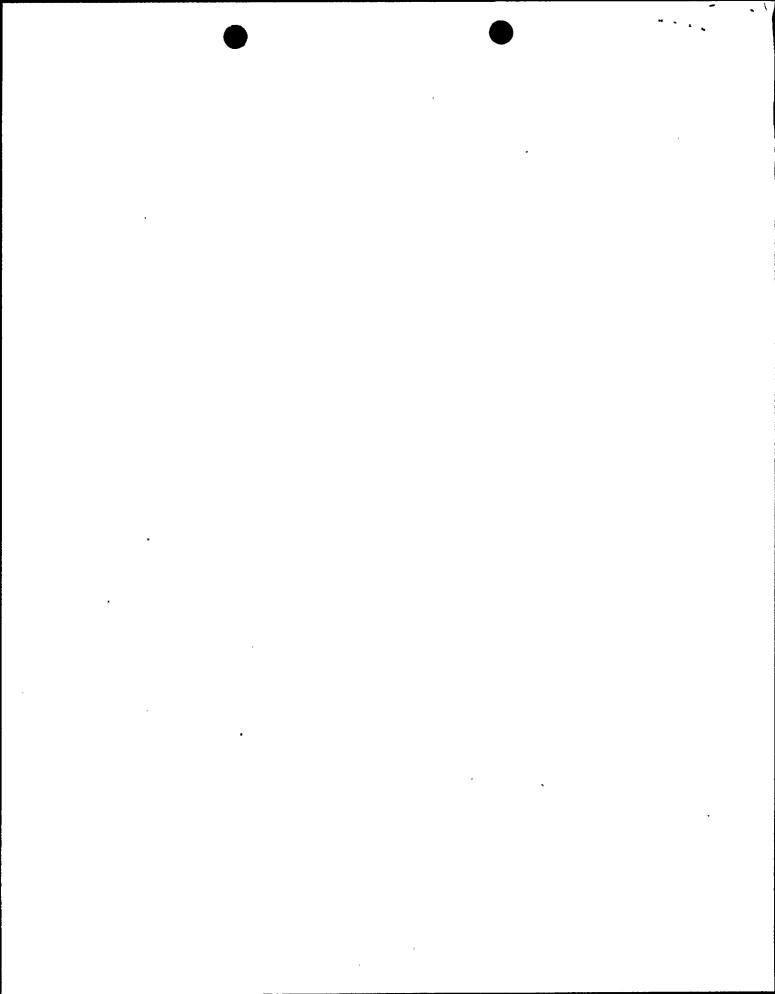
Arthur C. Gehr, Esq. Snell and Wilmer 3100 Valley Center Phoenix, Arizona 85073

Mr. James O. Schuyler
Nuclear Projects Engineer
Pacific Gas and Electric Company
77 Beale Street
San Francisco, California 94106

FOR INFORMATION

Mr. James Hanchett
Public Affairs Officer, Region V
U. S. Nuclear Regulatory Commission
1990 North California Bouleyard, Suite 2

Mr. Carl Neiburger
 San Luis Obispo Telegram-Tribune
 P. O. Box 112
 San Luis Obispo, California 93406



Board and parties continued

Richard S. Salzman, Esq., Chairman Atomic Safety and Licensing Appeal Board

U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Dr. W. Reed Johnson
Atomic Safety and Licensing Appeal
Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Alan S. Rosenthal, Esq.
Atomic Safety and Licensing Appeal
Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

April 12, 1979

CONCIO DOCUMENT BOOM

Elizabeth S. Bowers, Esq., Chairman Atomic Safety and Licensing Board Panel U. S. Nuclear Regulatory Commission Washington, D. C. 20555

Dr. William E. Martin Senior Ecologist Battelle Memorial Institute Columbus, Ohio 43201 Mr. Glenn O. Bright
Atomic Safety and Licensing Board
Panel
U. S. Nuclear Regulatory Commission

20555

Washington, D. C.

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(Diablo Canyon Nuclear Power Plant, Units Nos. 1 and 2)
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James R. Tourtellotte
Assistant Chief Hearing Counsel

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Atomic Safety & Licensing Board Panel
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Docketing and Service Section

7905-100370

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

PACIFIC GAS AND ELECTRIC COMPANY

(Diablo Canyon Nuclear Power Plant Units Nos. 1 and 2)

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Assistant Chief Hearing Counsel

Marc R. Staenberg Counsel for NRC Staff

Edward G. Ketchen Counsel for NRC Staff

April 10, 1979'

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

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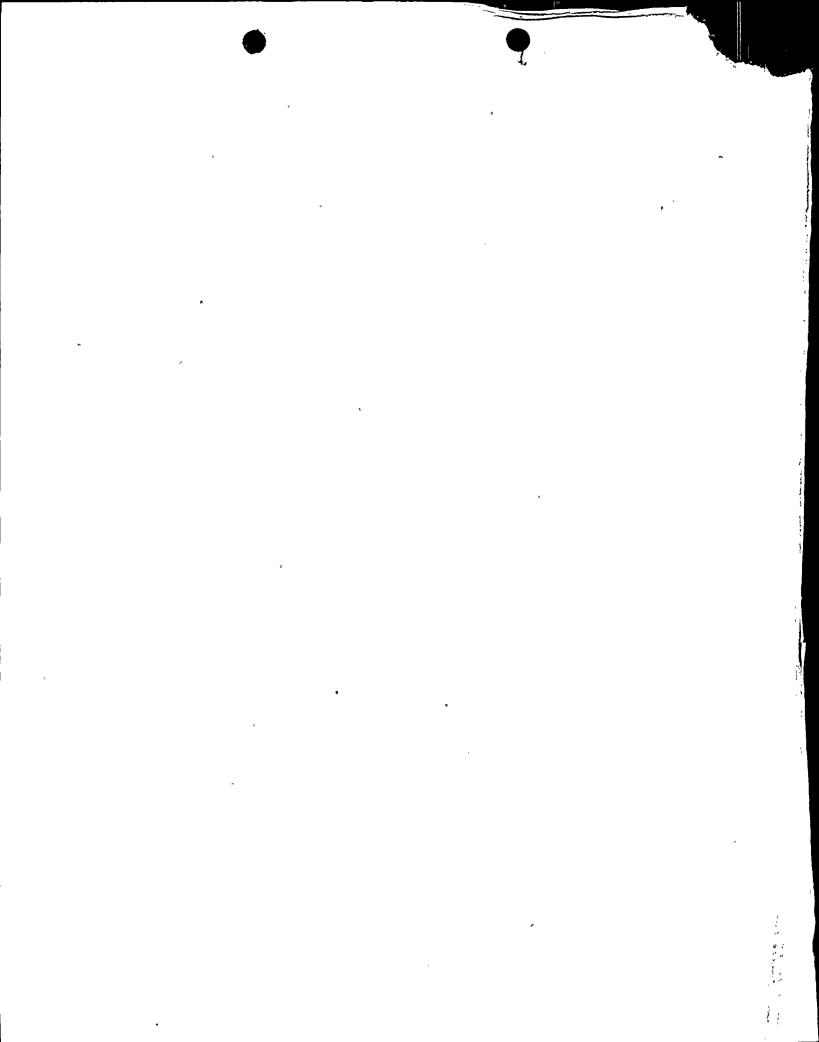
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- 4

NITED STATES OF AMERICA
N LEAR REGULATORY COMMISSION

Before The Commission

the Commission 1/12/29

In the Matter of:

PACIFIC GAS & ELECTRIC COMPANY (Diablo Canyon Nuclear Power Plant, Units 1 & 2)

Docket Nos. 50-275_0L 50-323 OL

JOINT INTERVENORS' REQUEST THAT THE COMMISSION WITHHOLD ISSUANCE OF AN OPERATING LICENSE FOR THE DCNPP

I.

The Joint Intervenors, SCENIC SHORELINE PRESERVATION CONFERENCE, INC., SAN LUIS OBISPO MOTHERS FOR PEACE, SANDRA SILVER, ECOLOGY ACTION CLUB, and JOHN J. FORSTER, request that the Commission, in exercise of its general supervisory powers over all Commission activities, withhold issuance of a license to operate the Diablo Canyon Nuclear Power Plant (DCNPP), pending a determination as to whether the facility should be modified in view of the information obtained from the analysis of the accident at Three Mile Island (TMI). Because we believe the Commission is best qualified to address the policy considerations raised in this motion, we raise it directly with the Commission rather than with the Licensing Board or the Appeal Board.

Should the Commission grant this request, we expect that first, the Applicant would document proposed modifications in an amendment to the FSAR; second, the Staff would review the proposed modifications in a supplement to the SER; and third, parties might initiate hearings on the modifications by submitting legally sufficient contentions to the Licensing Board.

II.

The Commission is currently investigating the recent accident at the TMI Nuclear Power Plant. That reactor, like the one at Diablo Canyon, is a pressurized water reactor. The results from these ongoing investigations have not been made public. However, reports in the press indicate that the Advisory Committee on Reactor Safeguards (ACRS) has written the Commission regarding problems encountered at TMI that may apply to all pressurized water reactors. Apparently, two identified problems are (1) the failure of pressure gauges to advise reactor operators of the water level in the reactor vessel, and (2) the absence of any mechanism for automatically venting gasses that may collect at the top of In addition, statements by NRC officials the reactor vessel. indicate that in-containment instruments have failed in the postaccident environment. Further analysis may uncover other safety problems generic to pressurized water reactors and, therefore, relevant to the DCNPP.

Permitting DCNPP to go critical may preclude modifications to that facility, indicated from TMI analysis and, in any event, would likely make such modifications more expensive and dangerous to workers engaged in modifying the facility.

Public safety is the first, last, and permanent question in any decision on the issuance of a construction permit or a license to operate a nuclear facility. Power Reactor Co.

v. <u>Electricians</u>, 367 U.S. 346, 402 (1961). That consideration, we submit, requires the Commission to withhold issuance of a license to operate the DCNPP until it is determined whether, and, if so, to what extent the DCNPP should be modified.

Respectfully submitted,

David of Les chalus

David S. Fleischaker, Esq. 1025 Fifteenth Street, N.W. Suite 602 Washington, D.C. 20005 (202) 638-6070

John R. Phillips, Esq.
Steven Kristovich, Esq.
CENTER FOR LAW IN THE PUBLIC INTEREST
10203 Santa Monica Boulevard
Los Angeles, California 90067
(213) 879-5588

Attorneys For Joint Intervenors SCENIC SHORLINE PRESERVATION CONFERENCE, INC. SAN LUIS OBISPO MOTHERS FOR PEACE ECOLOGY ACTION CLUB SANDRA A. SILVER JOHN J. FORSTER

April 12, 1979

We would like to stress that we are not suggesting that the ASLB stay issuance of a partial initial decision on the seismic issues. To the contrary, we believe that such a decision should be issued as expeditiously as possible. The record is complete in that complex matter, and it makes no sense to stall the Licensing Board's decision and appellate review of that decision.

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

In the Matter of:

PACIFIC GAS & ELECTRIC COMPANY
(Diablo Canyon Nuclear Power
Plant, Units 1 & 2)

Docket Nos. 50-275 OL
50-323 OL

CERTIFICATE OF SERVICE

I hereby certify that I have this 12th day of April, 1979, served copies of the foregoing JOINT INTERVENORS' REQUEST THAT THE COMMISSION WITHHOLD ISSUANCE OF AN OPERATING LICENSE FOR THE DCNPP upon all of the parties listed below either by depositing copies thereof in the U.S. Mails, first class, postage prepaid, or by hand delivery (*).

Dr. Joseph Hendrie, Chairman (*)
U.S. Nuclear Regulatory Commission
1717 H Street, N.W.
11th Floor
Washington, D.C. 20555

Victor Gilinsky, Commissioner (*)
U.S. Nuclear Regulatory Commission
1717 H Street, N.W.
11th Floor
Washington, D.C. 20555

Richard T. Kennedy, Commissioner (*)
U.S. Nuclear Regulatory Commission
1717 H Street, N.W.
11th Floor
Washington, D.C. 20555

Peter A. Bradford, Commissioner (*)
U.S. Nuclear Regulatory Commission
1717 H Street, N.W.
11th Floor
Washington, D.C. 20555

John F. Ahearne, Commissioner (*)
U.S. Nuclear Regulatory Commission
1717 H Street, N.W.
11th Floor
Washington, D.C. 20555

Alan Rosenthal, Chairman (*)
Atomic Safety & Licensing
Appeal Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

W. Reed Johnson, Member (*)
Atomic Safety & Licensing
Appeal Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Richard S. Salzman, Member (*) Atomic Safety & Licensing Appeal Board U.S. Nuclear Regulatory Commission 10203 Santa Monica Boulevard Washington, D.C. 20555

Elizabeth S. Bowers, Esq., (*) Chairman Atomic Safety & Licensing Board U.S. Nuclear Regulatory Commission Mail Drop East West 450 Washington, D.C. 20555

Mr. Glenn O. Bright (*). Atomic Safety & Licensing Board U.S. Nuclear Regulatory Commission Mail Drop East West 450 Washington, D.C. 20555

Docket & Service Section Office of the Secretary U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Dr. William E. Martin Battelle Memorial Institute Columbus, Ohio 43201

James R. Tourtellotte, Esq. (*) L. Dow Davis, Esq. Lawrence Brenner, Esq. Office of Executive Legal Director - BETH 042 U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Mrs. Elizabeth Apfelberg 1415 Cozadero San Luis Obispo, CA 93401

Sandra A. & Gordon Silver 1760 Alisal Street San Luis Obispo, CA 93401

and Vitues molus DAVID S. FLEISCHAKER, ESQ.

John Phillips, Esq. Center For Law In The Public Interest Los Angeles, CA 90067

Paul C. Valentine, Esq. 321 Lytton Avenue Palo Alto, CA 94302

Janice E. Kerr, Esq. Lawrence Q. Garcia, Esq. J. Calvin Simpson, Esq. California Public Utilities Commission 5246 State Building 350 McAllister Street San Francisco, CA 94102

John C. Morrissey, Esq. Philip A. Crane, Esq. Pacific Gas & Electric Company 77 Beale Street, Room 3127 San Francisco, CA 94106

Arthur C. Gehr, Esq. Snell & Wilmer 3100 Valley Center Phoenix, Arizona 85073

Bruce Norton, Esq. 3216 N. Third Street Suite 202 Phoenix, Arizona 85012

Mr. Yale I Jones, Esq. 100 Van Ness Avenue 19th Floor San Francisco, CA 94102

Mrs. Raye Fleming 1920 Mattie Road Shell Beach, CA 93449

MHB Technical Associates 1723 Hamilton Avenue Suite K San Jose, CA 95125

Carl Neiburger Telegram Tribune P.O. Box 112 San Luis Obispo, CA

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PACIFIC GAS AND ELECTRIC COMPANY

16. Griff +

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77 BEALE STREET, 31ST FLOOR . SAN FRANCISCO, CALIFORNIA 94106 . (415) 781-4211

JOHN C. MORRISSEY VICE PRESIDENT AND GENERAL COUNSEL

MALCOLM H. FURBUSH
ASSOCIATE GENERAL COUNSEL

CHARLES T. VAN DEUSEN
PHILIP A. CRANE, JR.
HENRY J. LAPLANTE
RICHARD A. CLARKE
JOHN B. GIBSON
ARTHUR L. HILLMAN. JR
ROBERT OHLBACH
CHARLES W. THISSELL
ASSISTAT CEREMA COURSE

April 11, 1979

4/11

CILBERT L, HARRICK DIEMN WIST, JR. DIEMN WIST, JR. DIEMN JR. BERNARD J, DELLABANTA SENIOR COU

EOWAED J, MCGANNEY DANIEL E, GIBBON JDBEPH I, KELLY HOWARD V, GOLUB JAMES C, LOBBOON

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STEVEN P. BURKE

FRANCIS CHAPPELE

GRIAN B. CONTON

VILLIAM H. CONADOS

ROBERT B. COLER

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41108MEVS

Elizabeth S. Bowers, Esq.
Chairman
Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Re:

Docket No. 50-275-0L Docket No. 50-323-0L

Diablo Canyon Units 1 & 2

Dear Mrs. Bowers:

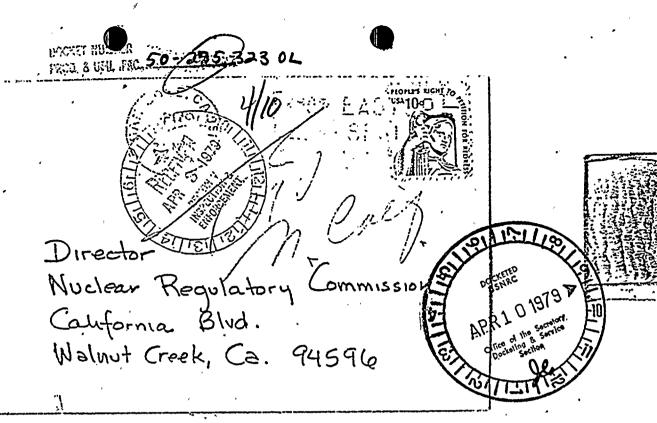
At line 10 on page 32 of our rebuttal to the Joint Intervenors' Proposed Findings of Fact reference is made to the Board's Order of May 25, 1977. Reference should also have been made to the Board's Order dated August 3, 1978, which is referred to on page 8 of the Joint Intervenors' Findings, and we ask that our rebuttal be amended accordingly.

Very truly yours,

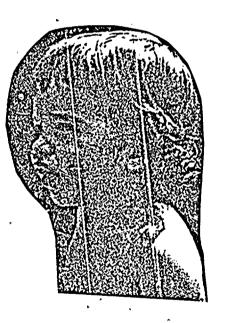
Philip A. Crane, Jr.

CC': Service List

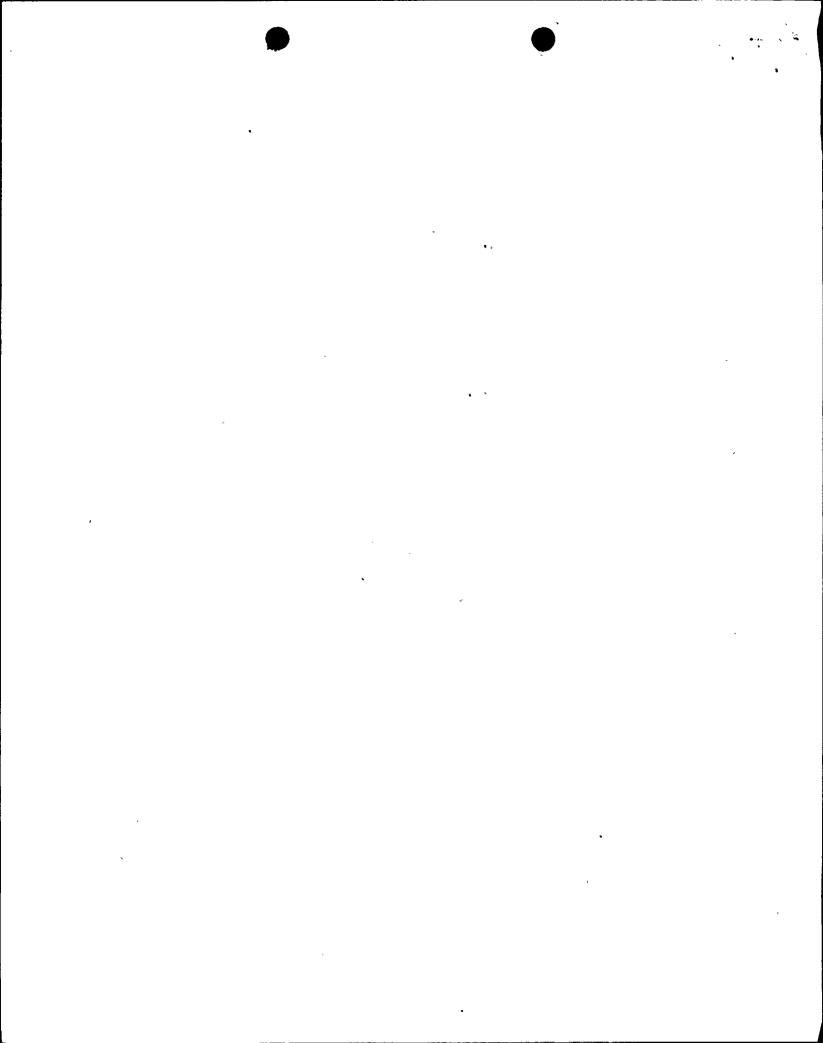


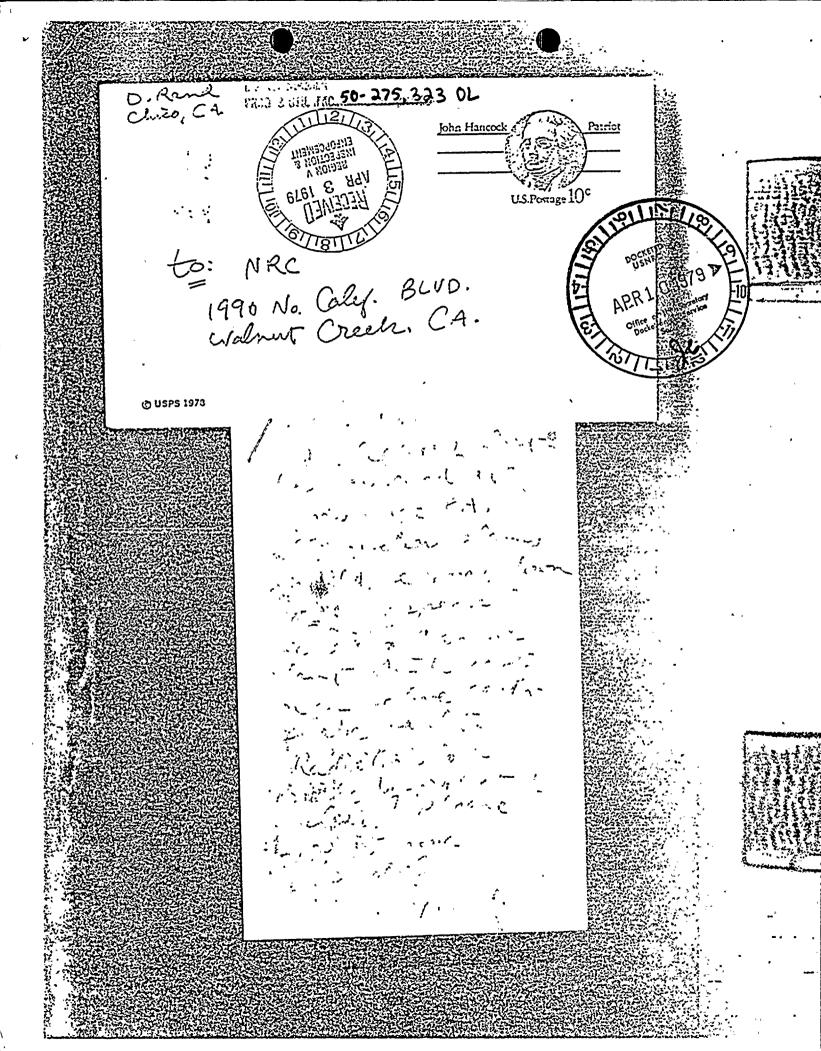


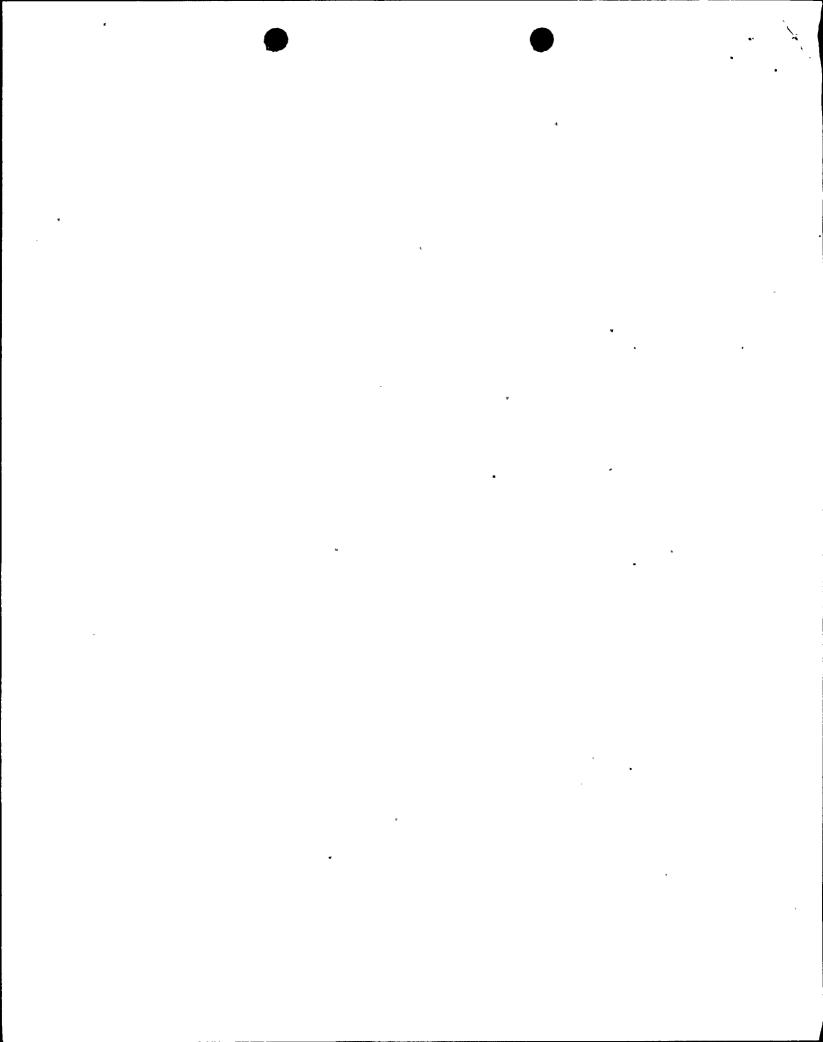
I forbid you to risk
the life of my little
brother + my family
by opening. Diablo Canyon.
You must shot down
all nuclear power plants.
Sally Margolis
323M. Corrinch Ave.
Capitola, Ca. 95010.



Acknowledged by card. 410







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RE

Dear Director
As a concerned citizen, t

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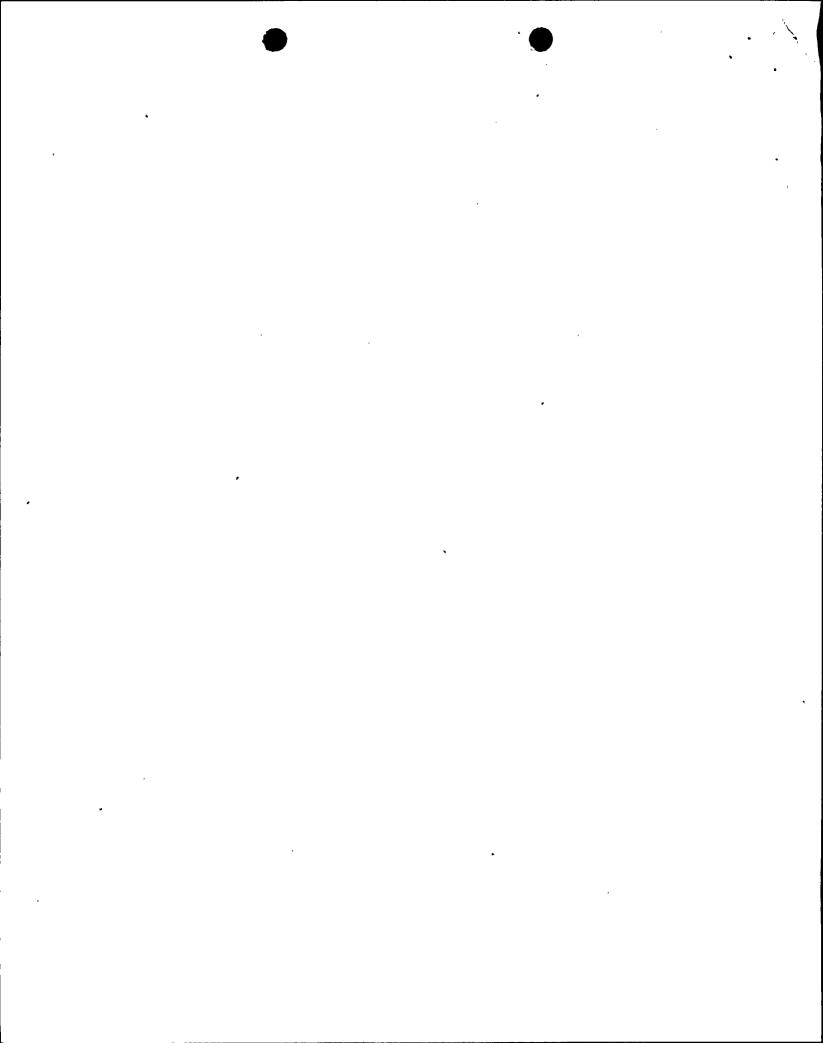
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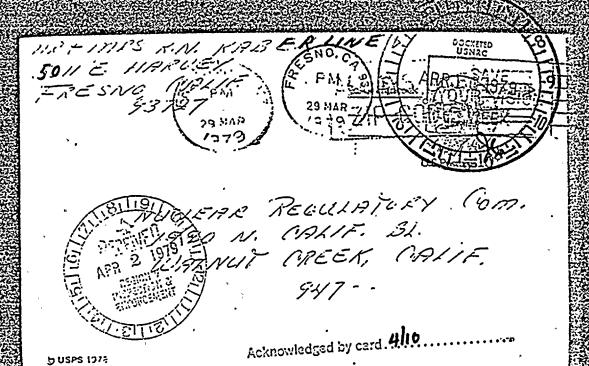
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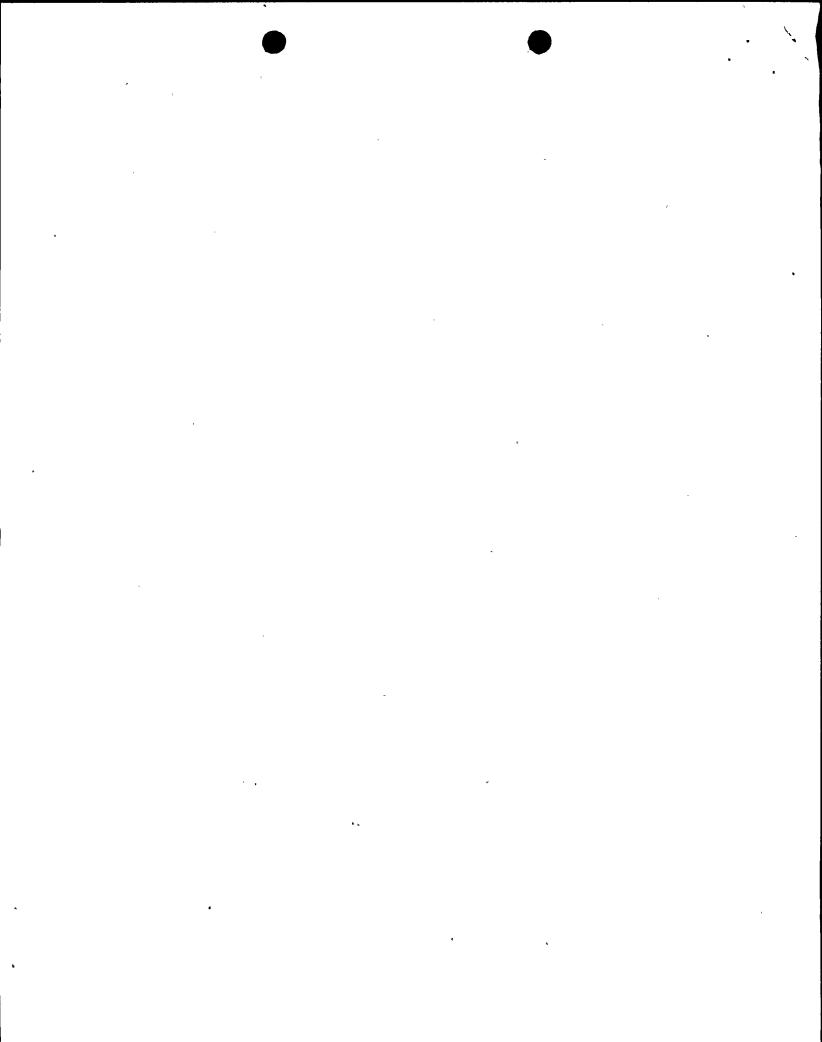
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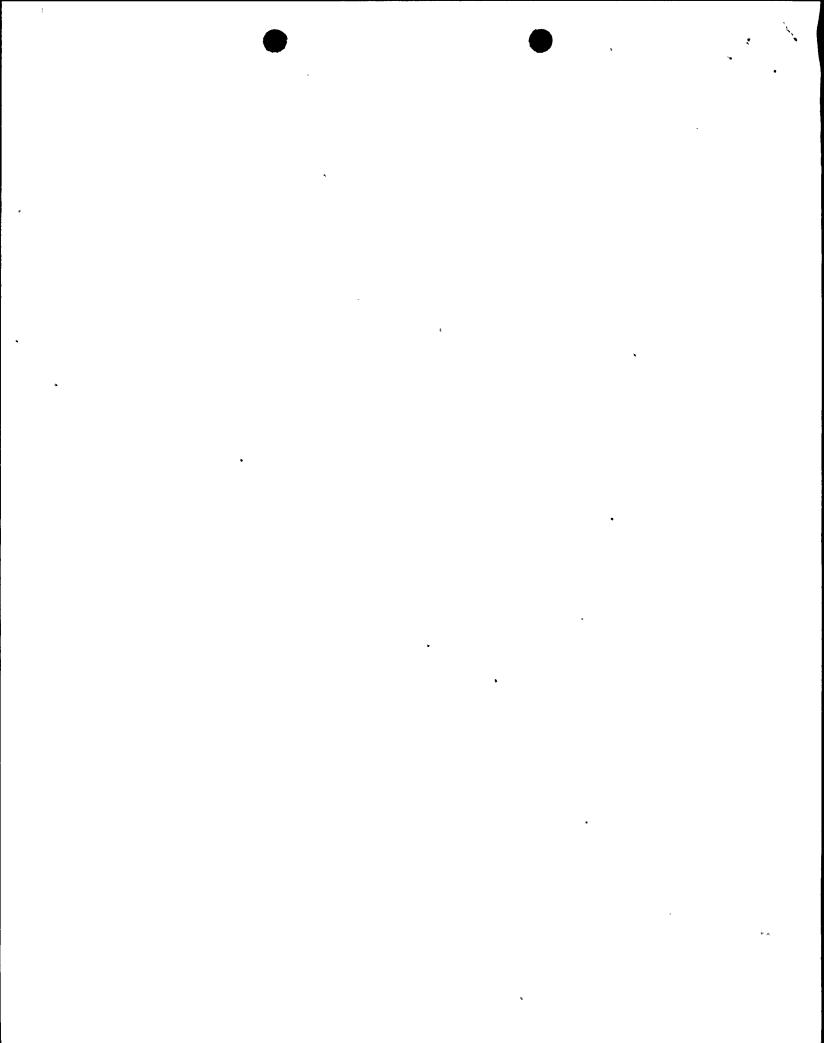
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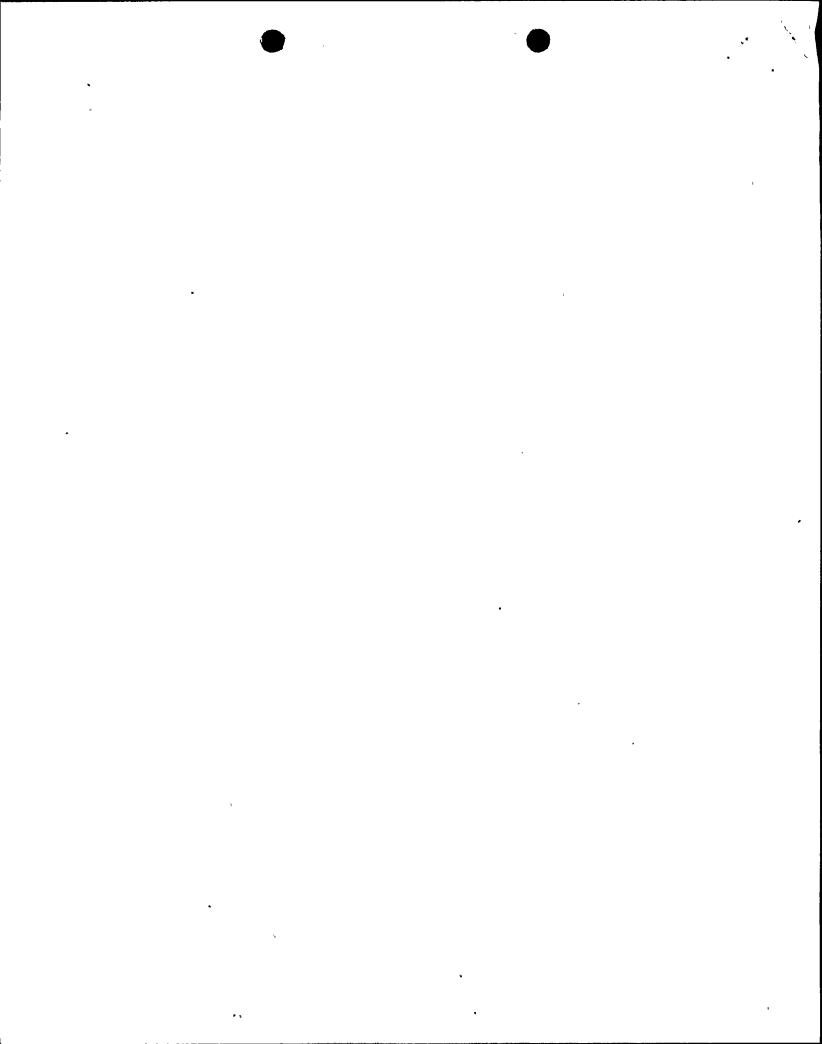
TIMMER ESTIMANT APOXALULAN



he Federal Muclear. Regulatory, Commission, am a voting member of the state of California. I went to make my views known on the Subject of the Dizblo Canifur Nuclear Plant I am totally opposed to the opening of the Dizblo Conjuni first of 2119 there is presently no sale way of storens nuclear waste. Secondly the plant is located only 2 1/2 miles from the Hosqvi fautt. The Diablo Canyon Nuclear plant was to with stand a maximum schock of 6.7° According to the geologic study by The U.S. Geologic Book Survey, the Hosgri Fault could give 2 schock of op to and 4110



per haps beyond 7.5. WhAT ThEN !! You may say thats 2 Chance in 2 millian, but you also said the accident et Three Wile Island would be 2 chance in 2 million. pleaser Stop the Drablo Canyon opening of the Drablo Canyon Nuclear Plant. Please stop he construction at sen Onofre. Mark you for listening Parbarz Wyler 2708 The Strend Manhatten Beach Coliforni2 90266



To: Federal Nucler Regulatory Commission,

Although I am not a resident of California, I feel compelled to express my dire concerns involving the operation of the Diablo Canyon Nuclear Power Plant in San Luis Obispo.

It is evident that if the Hosgri fault had been detected prior to the construction of the plant the reactors would have never been built. Now, the Hosgri fault is well documented as a large, active earthquake fault and does pose an undue risk to the public, being only $2\frac{1}{2}$ miles offshore from the two nuclear reactors.

In the past you have taken a very responsible stand on the . 1 proliferation of nuclear technology. I sincerely urge you to use your executive powers in the intervention of Diablo Canyon, if it is granted an operating license. The people of California, specifically the 50,000 residents living within 12 miles of the nuclear reactors, have a lot more to lose -- in human life, if there is an earthquake on the Hosgri fault, than does Pacific Gas and Electric Co., by not being allowed to operate the plant.

Once again, we in our technologically sacred society, are faced with the decision of choosing the safety of people or the risks and profits of a large private corporation such as, Pacific Gas and Electric Co. Unfortunately the answer to this question is not as obvious as a humanist might hope. Please chose LIFE -- INTERVENE AT DIABLO CANYON and maintain cur faith in you and our government of the people -- for the people -- for the people.

Adjed by card. 4.1100

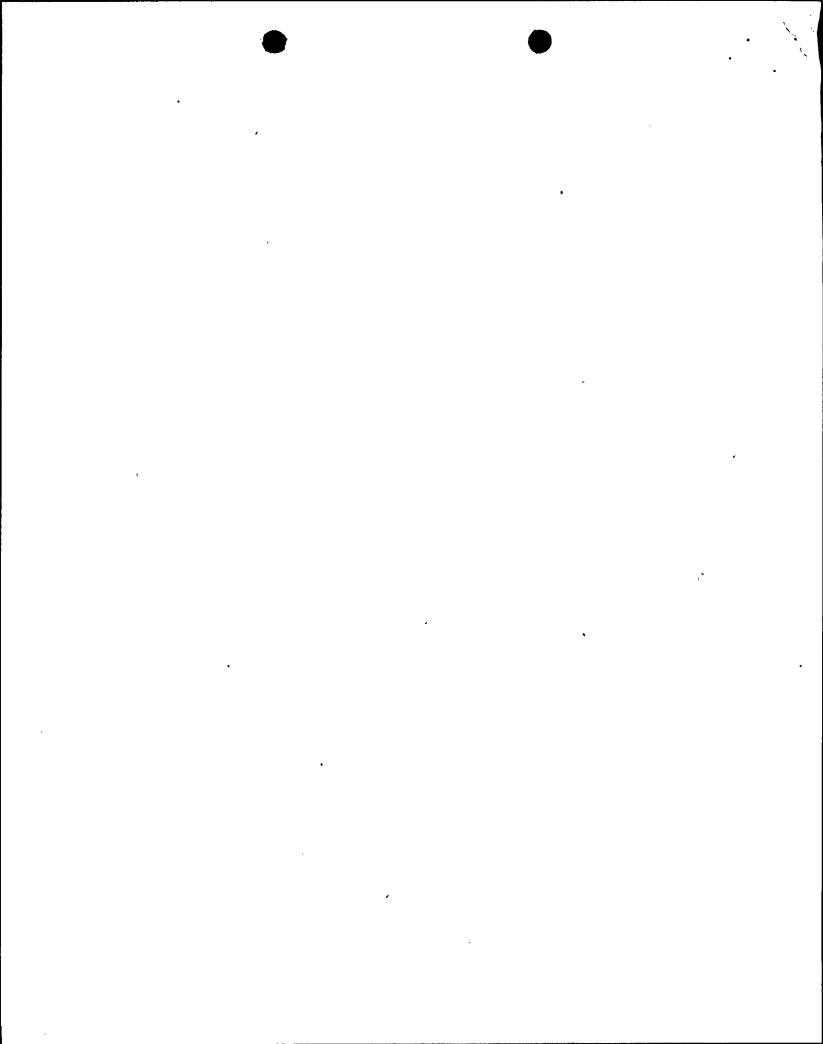
Sincerely in Peace,

Write: Federal Regulatory Commission 1990 North California Blvd. Suite 202 Walnut Creek, California 94596

Tyle A ful

Laurie Whisher

Holh alma





2734 Westwood Blvd. Los Angeles, CA April 2, 1979

Federal Nuclear Regulatory Commission 1990 North California Blvd. Suite 202 Walnut Creek, CA 94596

RE: Diablo Canyon Power Plant

Gentlemen:

I strongly oppose the anticipated operation of the Diablo Canyon Power Plant. I understand that this plant stands dangerously close to a major fault. Experts' reassurance of the "foolproof" safety measures inherent in the plant's control system no longer pacifies me. In view of recent calamities at the Three Mile Island nuclear power plant, the Alaska Pipeline's pump stations, etc., human error still prevails over engineering genius. Clearly, nuclear fallout can never be an affordable mistake.

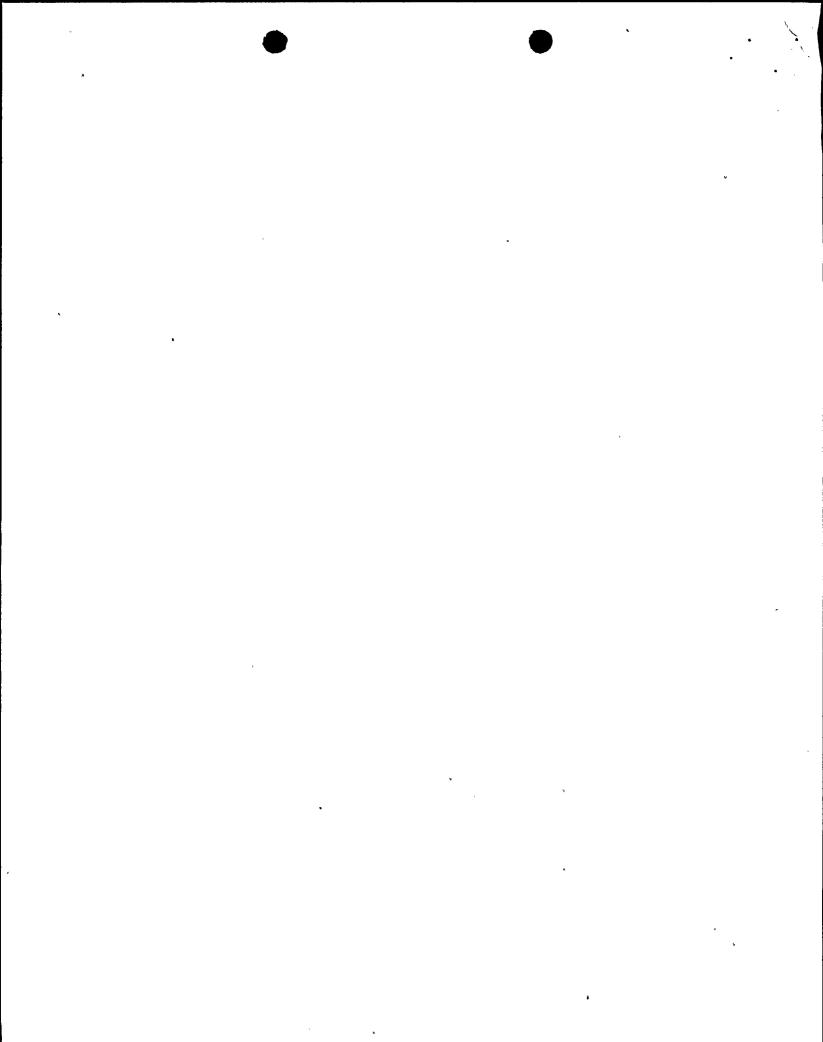
As a taxpayer I am willing to suffer the costs of construction of this plant. The threat that this situation imposes on the safety of Southern California's citizens undermines any economic or political priority.

Sincerely yours,

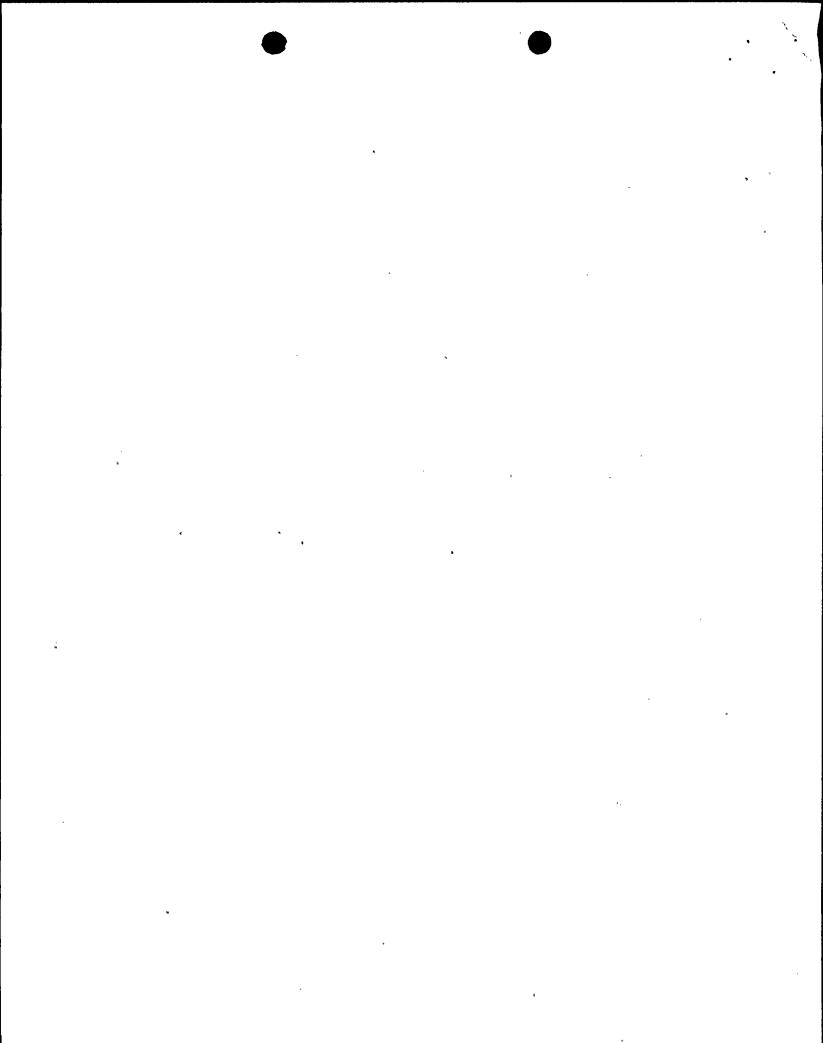
Marie A. Dempsey

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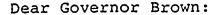


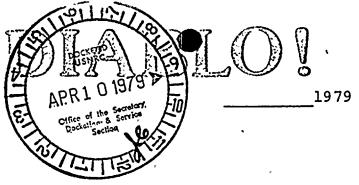
I WISH IT MAKE MY WEWS NOUN ON THE MOTHER OF ALL WICKEAR POWER PLANTS. IVE READ AND STIDIED A GREAT DOAL OF MATERIAL ON THE PLANTS, AND I BEZIEVE FIRST, NO NEW PLANTS SHOULD BE BUILT PERIOD SECOND, PLANTS NOW IN CREKATION SHOULD BE SHIT DOWN STOTPLLY MONEY WHICH WOCKD HAVE BEZN SCENTI ON NUCLEAR POLICE PLHNTS. AND RESCAPCH & SHOULD BE LISTON ITO DEVELOP SOLAR POLYCE. IT IS OF CROAT CONCERN TO ME THAT THE OPENING OF THE DIABLO CANYON POWER PLANT S AT HAND THIS MUST NOT HAPPEN ASTERNATION THAT THERE ARE THOUSANDS OF INFORMED & THE OUT HERE WHO ARE HGAINST NUCCETAR REACTIONS. DON'T CETT DIABLO CANGN PLANT OPENI EMPHATICALLY - TO 1/2/2014





Governor Edmund G. Brown State Capitol Sacramento 95814





The greatest single danger to the health and safety of Californians is the imminent opening of the Diablo Canyon nuclear power plant. Your own state commissions have shown that any nuclear plant presents extreme hazards, because no feasible, long-term solution has been developed to safely store deadly, radioactive nuclear wastes. Your own energy advisor, Wilson Clark, has stated that California's earthquake-prone geological condition makes nuclear plants in California an unacceptable risk.

The Diablo Canyon plant is very near the active Hosgri fault. Please follow up on your prudent and wise stand on nuclear plants and do everything in your power to permanently stop the opening of the Diablo Canyon facility. The health and safety of this and countless future generations of Californians depends on it.

I also want to take this opportunity to pledge my full support to your drive to make California the world's leader in appropriate, renewable energy resources like solar, wind, biomass, etc. I ask that the state's spending in this field be given as much as possible to small businesses and independent inventors. By promoting small businesses, the government can help to redistribute wealth and power in a natural way that rewards individual incentive rather than corporate monopoly. Investing money in appropriate technology (considering our declining base of natural resources) is money wisely spent and the real alternative to nuclear power.

Finally, I want to express my solidarity with the 500 people who participated in non-violent, civil disobedience at Diablo Canyon last August. It is very unfortunate that Judge Carter refused to allow them to use the defense of necessity. The demonstrators were surely taking prudent action against a grave threat to the public's welfare. Since your own advisors have warned you of the dangers of nuclear plants, I feel it is only just that you give the demonstrators full amnesty. Thank you.

Sincerely,

Signature

Print Name

Print Name

Care Scale Care State Zip

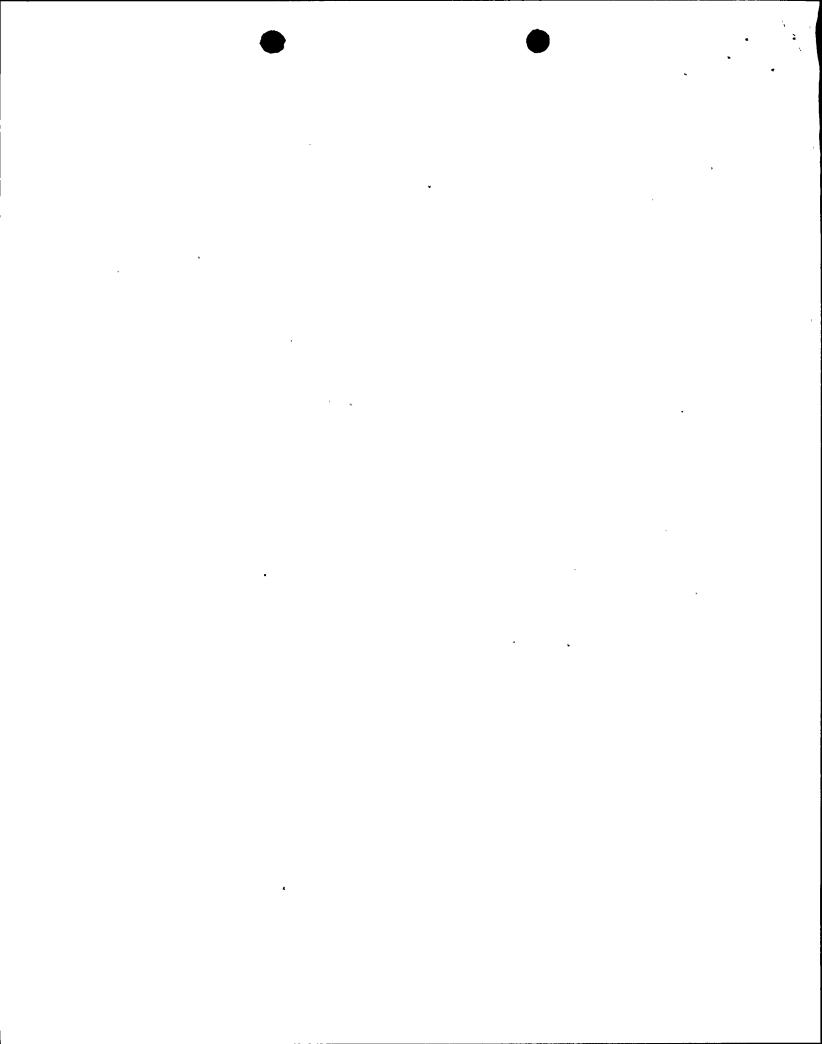
Signature

City State Zip

THE NEW AGE CAUCUS

SIMPLE LIVING and HIGH THINKING | ACTIONISED BY Card. 4/10

This form letter was prepared by the New Age Caucus. For more information or additional copies, please call 213-820-8182 or write NAC, 11771 Santa Monica Blvd., LA 90025.



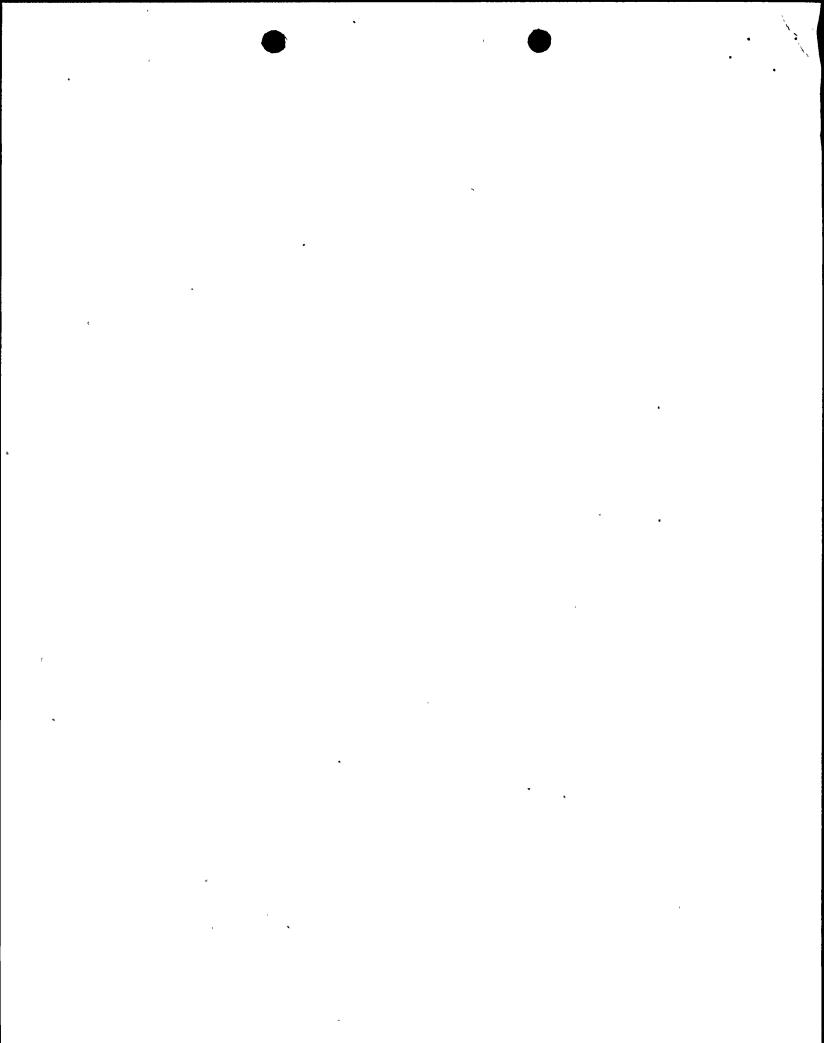
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January

January William Breek Be Wear Sir: Kling the last year Stre done some ettenment research or Clinical for fever foreign hachaton Minch of Soft in view of the above of the Slant's profunction the fault line that just word out weight the benefit's newed by making Wable Congon of making inierta yours, 318. Chestant St. Surta Cruz, Ca



april 1, 1979

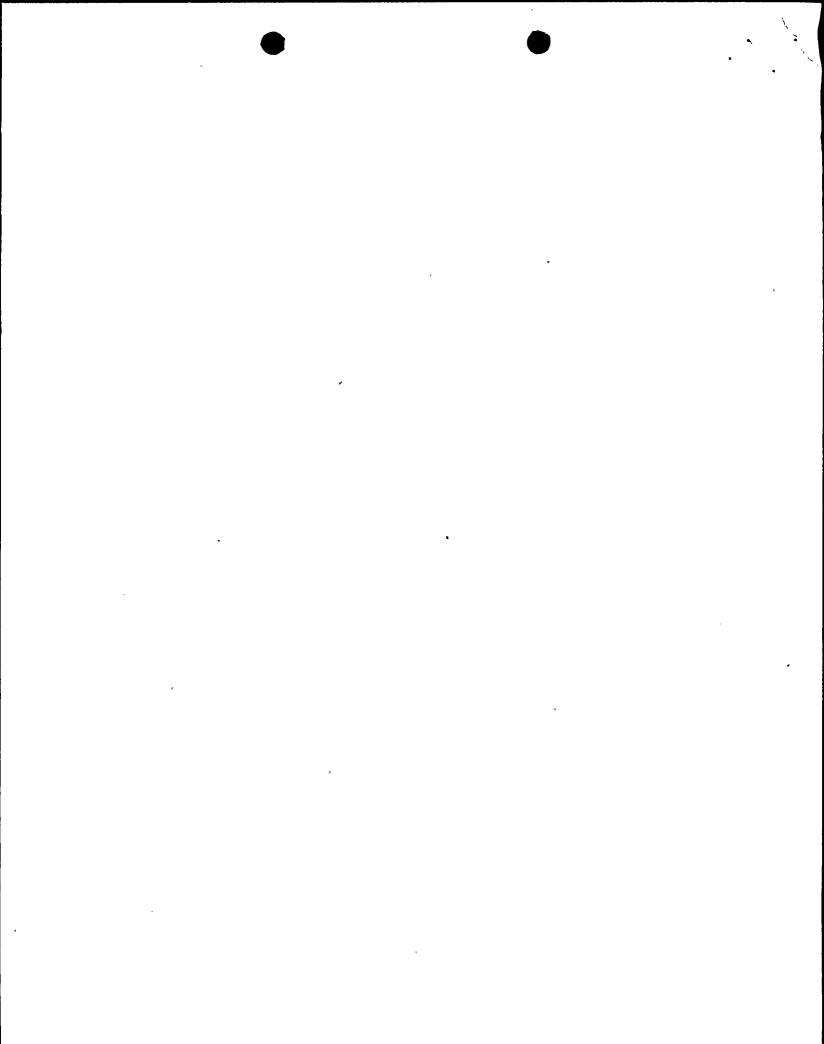
Federal Nuclean Regulatory Commission 1990 N. California Bluel. Suite 202 Walnut Creek, Ca. 94596

To Whom if May concern:

Dwish of voice my concern about the solvation involving the safety of operations at Diablo Camps. Besides the damage it has already done to the marine life there, there is constant threat of an earth quake which could produce though effects. The fact that the Hosqui Fault pone is located 2 12 miles affer from Diablo Canyon, is without any doubt reason enough to stop 4 consider design changes.

Into wake of disaster that has alreachy occurred in Pennsylvania, is wish to remind you of your responsibility as

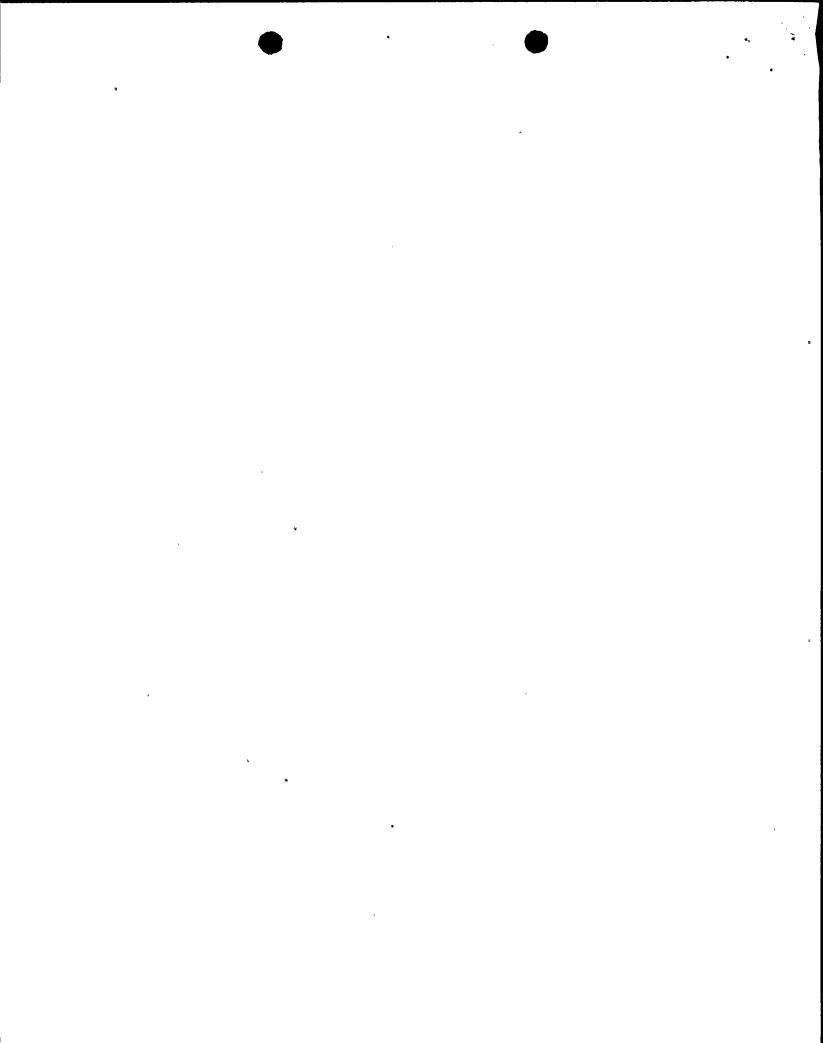
Acknowledged by card. 4/10.....



mandated by Congress to protect the people from nuclear reactor diasters.

You have the responsibility of the safe keeping of our environment and lives from radiation leatage. I hope you do not take this lightly:

Sincerely, Felicia Martines 4343 alongo abe. Encino, Ca. 91316



APR 1 0 1979 APR
Office of the sacrety
Open of

Margaret Culver Cinque 439 East Main Street Yorktown, Texas 78164

Federal Nuclear Regulatory Commission 1990 North Carolina boulevard, suite 202 Walnut Creek, California, 94596

March 28, 1979



Dear Commission members:

I hope my letter has not arrived too late, as I know you will be making the decision soon, if you have not already, on whether to allow the Diablo Canyon Nuclear Power Plant to go on line.

It is my firm conviction that Diablo Canyon Nuclear Power Plant must not begin operation. As you already have been informed, this particular plant is only 2 miles from the Hosgri earthquake fault, a major fault, and that it was not discovered until the plant was more than half completed. No doubt you realize the magnitude of this hazard to the people & other living things existing near this plant. I'm certain the PG&E company is putting much pressure on all of you to allow the plant to open as they have a multi-million dollar investment there that they do not care to lose even if it means the possibility of numerous deaths and countless health impairments, not to forget the genetic mutations caused by radioactive pollution, if an earthquake were to disrupt the control of the fission reaction.

I plead with each of you to follow your conscience and make your decision based on common sense and your respect for the citizens of California who have made similar pleas to you in order to preserve their health & safety & that of future generations. Do not be misled by shaky & false reassurances from the vested interests of PG&E. Please listen to us and stop this plant from operating now!

Sincerely,

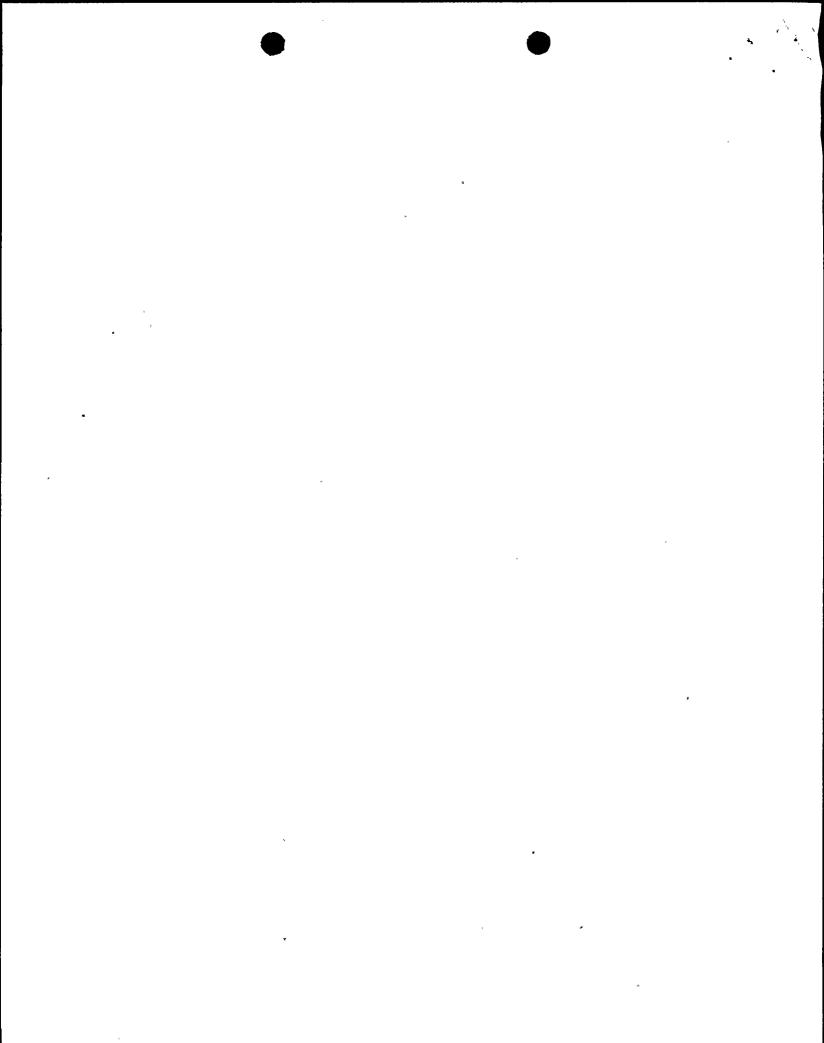
Margaret Cinque

Margaret Cinque

Recent resident of Los Angeles, moving to Texas to try to remove my family from the city's pollution & the threat of nuclear pollution in So. Calif.

P.S. I just heard the newsrelease today regarding the nuclear plant accident in Pennsylvania due to a valve breaking. It is reported that radiation leaked into the atmosphere and in one week it may be detected in the milk supplies of that area. Here is yet another case of the nuclear pollution that is happening because of these nuclear-fission plants. This is not even economical to have plants shut down for as long of periods as required to make a nuclear plant "safe" to operate.

1. read which is the court. Hill continuous and



DEAR Sins, Let me introduce muself. My name is Debra Flowers. I'm a voter, a democrat and a voman thomography convinced that nuclear power is a grave histoke.

Idon't care how much it sours in

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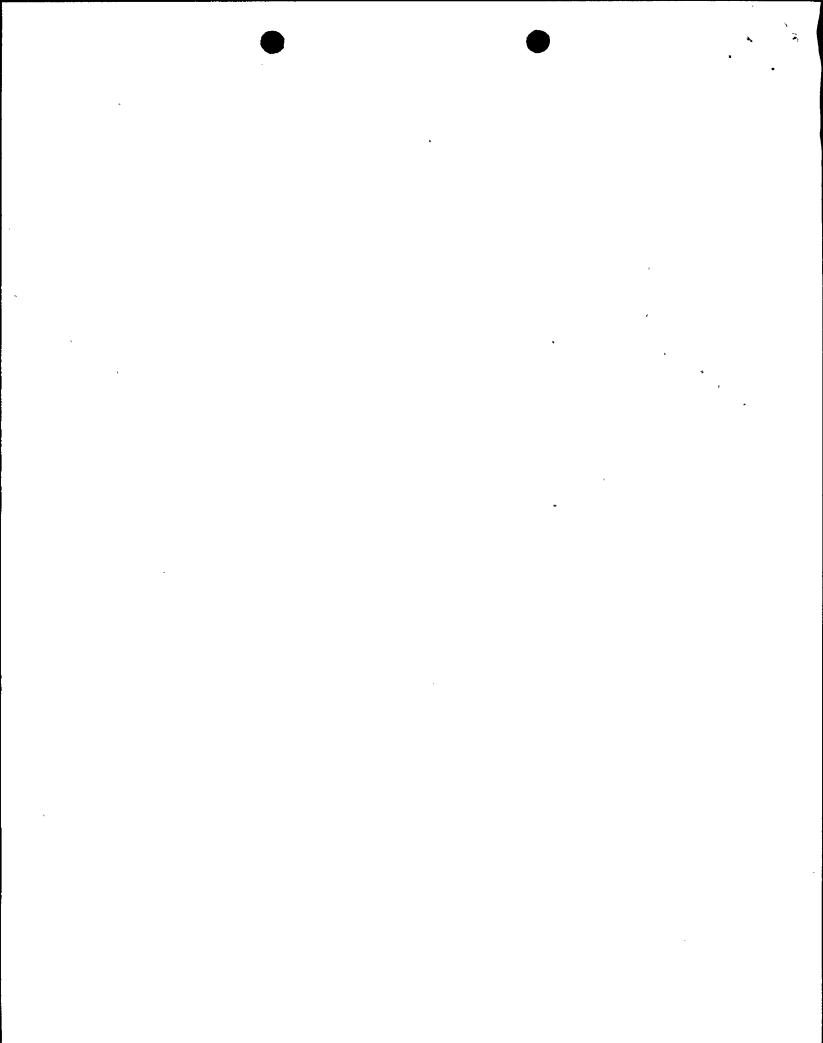
Idont care how much it sours in energy consumption. I don't give a claim if youthink the positive points outweigh the regative! You guys are abounch of thoughtless in rompoops! You can't glay ressian rouletter and expect never to get the Bullet! Now theres a laskage in term and you say the radiation tovel is low and not change rous. That's pure ignorance! Its

dangérous. That's pure ignorance! Its been proven that even dental and Detors X-Regs can and do couse l'eukemia.

what short the milk that those cows are producing?

In going to do all I can to make sure people uncerned with the wilfare of our nation and all nations in the future are set from the unholy waste of nuclear waste & devistation!

VECKTORS DE Shut down, until the



day when men of poar arealso men of conscience I will join millions of men and women ready to fight for the good of all mankind we will make others aware of your plunderings and one day the light of the world will be safe and pure.

Please COIFE,

DEBENTIONERS

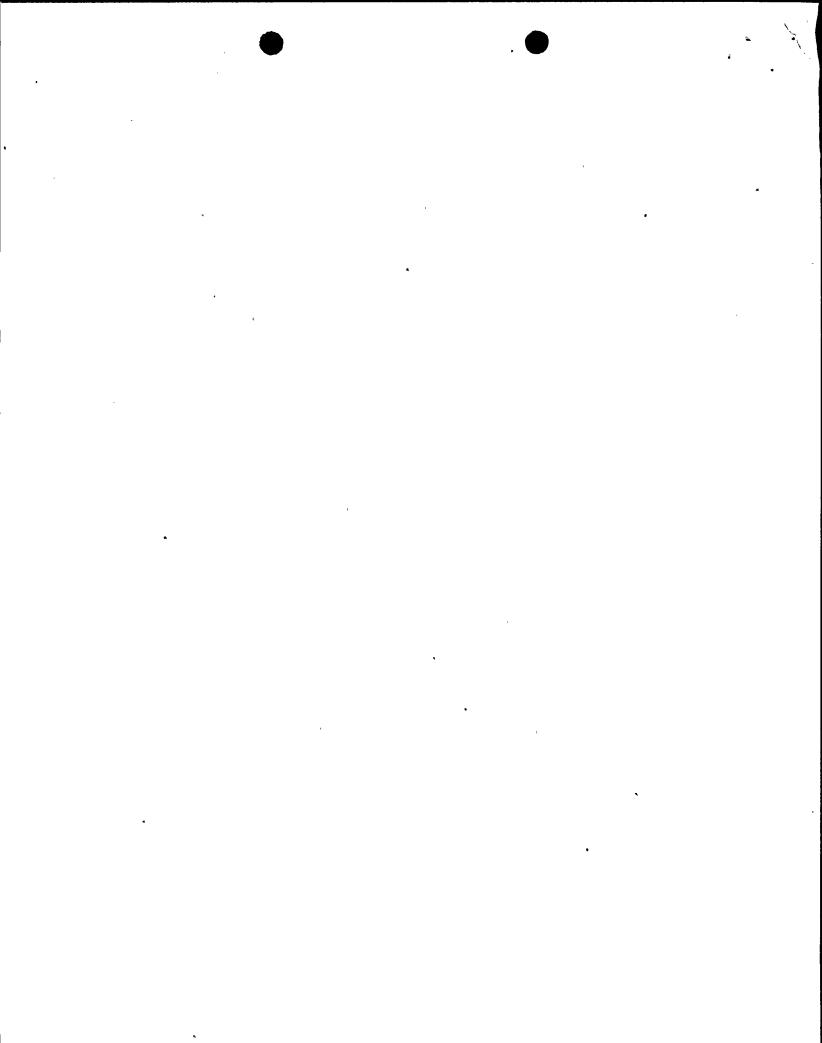
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70731

PS. I've written Everyone from Gov. Brown to Ralph Neder in hopes one of pu will det.





March 27, 1979 Tuesday

Jane Fell 737I W. EI st St. Los Angeles, Calif. 90045

To: the Federal Nuclear Regulatory Commission

Dear Sirs--

Last month I attended a concert supporting the Diablo Canyon Nuclear sites protests. I had not been informed about the Diablo Canyon Nuclear Power Plant before then, and I am not much more informed now. I know only what people tell me, people with motives of which I have no knowledge. I don't know how dangerous the Diablo Canyon project is. It is said that a fault exists near by, and that the site is very illogically chosen for building a nuclear power plant. I urge you, of the Federal Nuclear Regulatory Commission, who know the situation's pros and cons much better than I, to act for the good of the people, present and future, to safeguard lives, not money for individuals of convenient protection for mistakes.

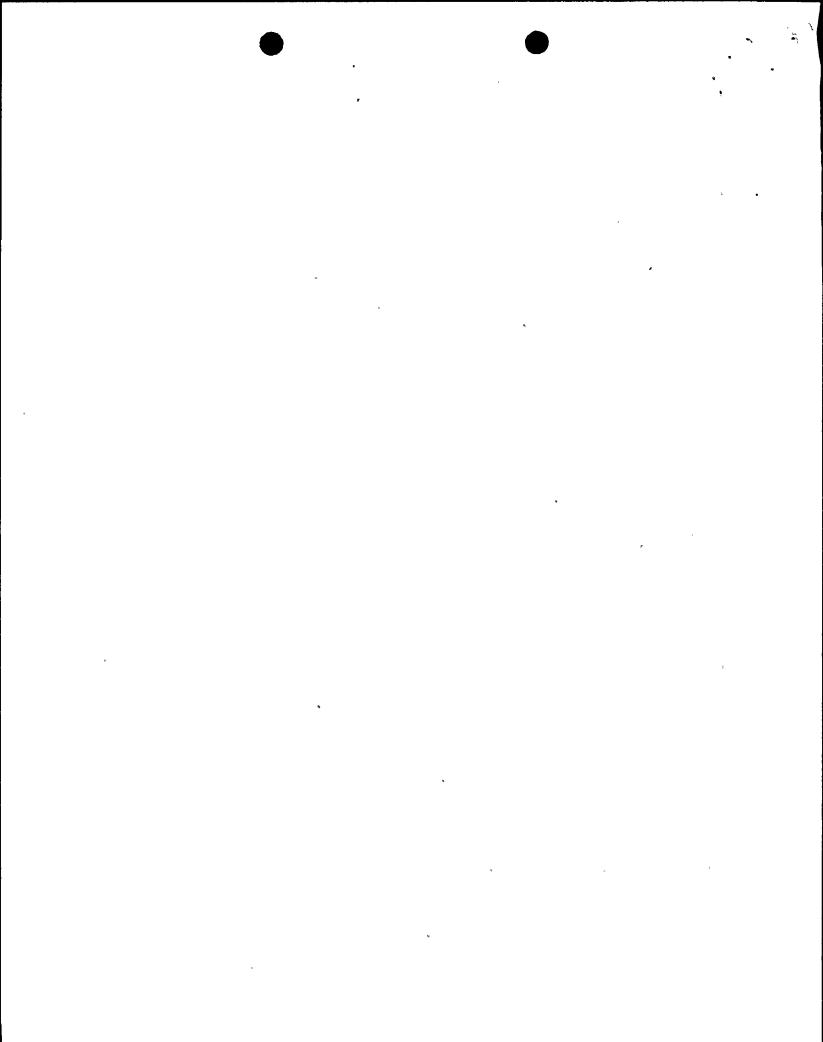
Sincerely,

= Jane K. Pavel

Mowledged by card. 4/10







Laura Damiani 2204 P Street Sacramento, CA 95816

Federal Nuclear Regulatory Commission 1990 North California Blvd. #202 Walnut Creek, CA 94596



Dear Commissioners:

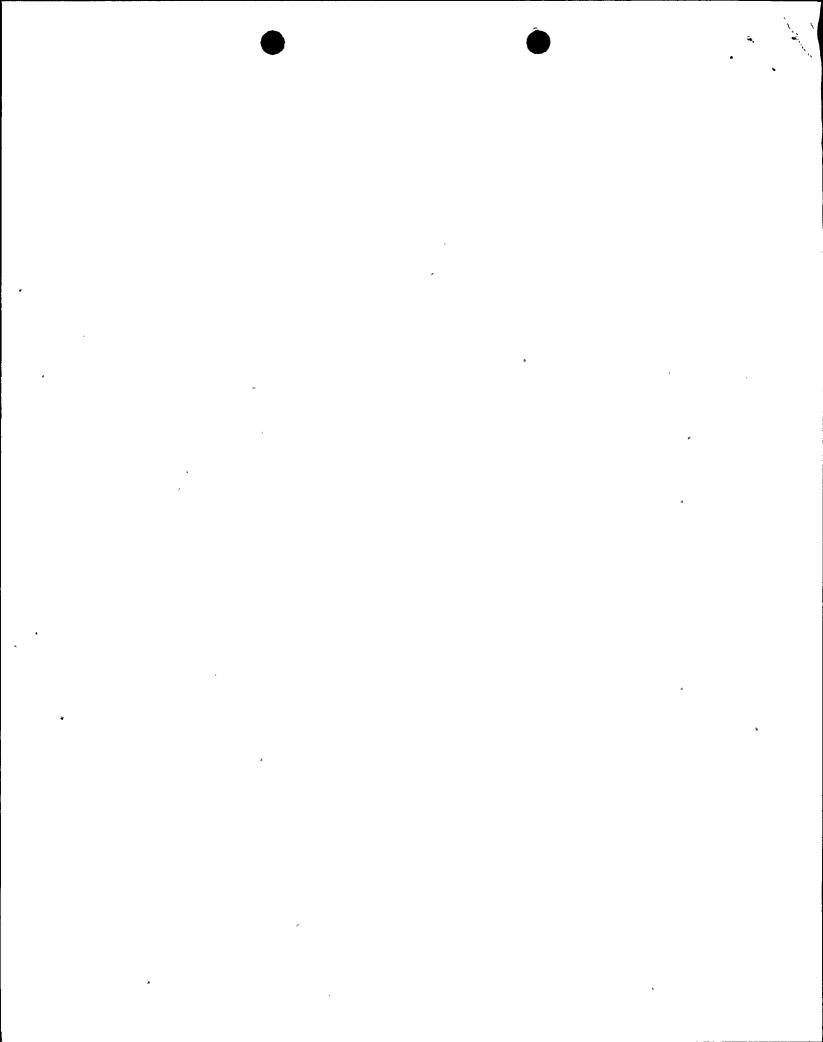
Regulation of nuclear power is on everyone sminds these days. I have recently been writing letters to make my opinion known about the Diablo Canyon Power Plant here in California. I am not a member of any action group. I am writing as an individual who has strong, sincere, negative feelings about the operation of nuclear power plants (especially this one on an earthquake fault line). P. G.+E. has answered my letter with a letter that states that their plant is infallible. That there is little or no chance of any failures in their safety systems. I Believe that all human systems eventually fail (there are no man-made articles that have lasted forever).

What then? I have teenage children who understand the dangers of nuclear "melt-down". They don't want to have to deal with nuclear waste. P. G. and E. told me in their letter that systems for waste disposal are being worked on. This is a backward approach. Please don't leave our children this legacy. They don't want it! Please don't give P. G. and E. the authorization to activate this plant, The monetary wealth that they will generate at this plant is miniscule when compared to the horrors of nuclear exposure. Thank for your time and the time you will take fo make an humane decision about the activation of Diablo Canyon.

Amowinded by accd. 4/10.....

Laura Damiani Laura M. Damiane

Human Being





134 West Poplar Ave. San Mateo, Ca 94402 March 30, 1979

Federal Nuclear Regulatory Commission 1990 North California Boulevard, Suite 202 Walnut Creek, California 94596

Dear Commissioners:

It has taken a long time for me to be fully convinced of the certain dangers of the Diablo Canyon nuclear facility. Reading fairly widely, listening to the pro and cons, trying to weigh scientists' views has brought me to the evidence of inescapable risk.

It often appears that persons in places of great responsibility, such as your own - in government, industry, education and even in religious hierarchy - become trapped in their positions. They can't get out.

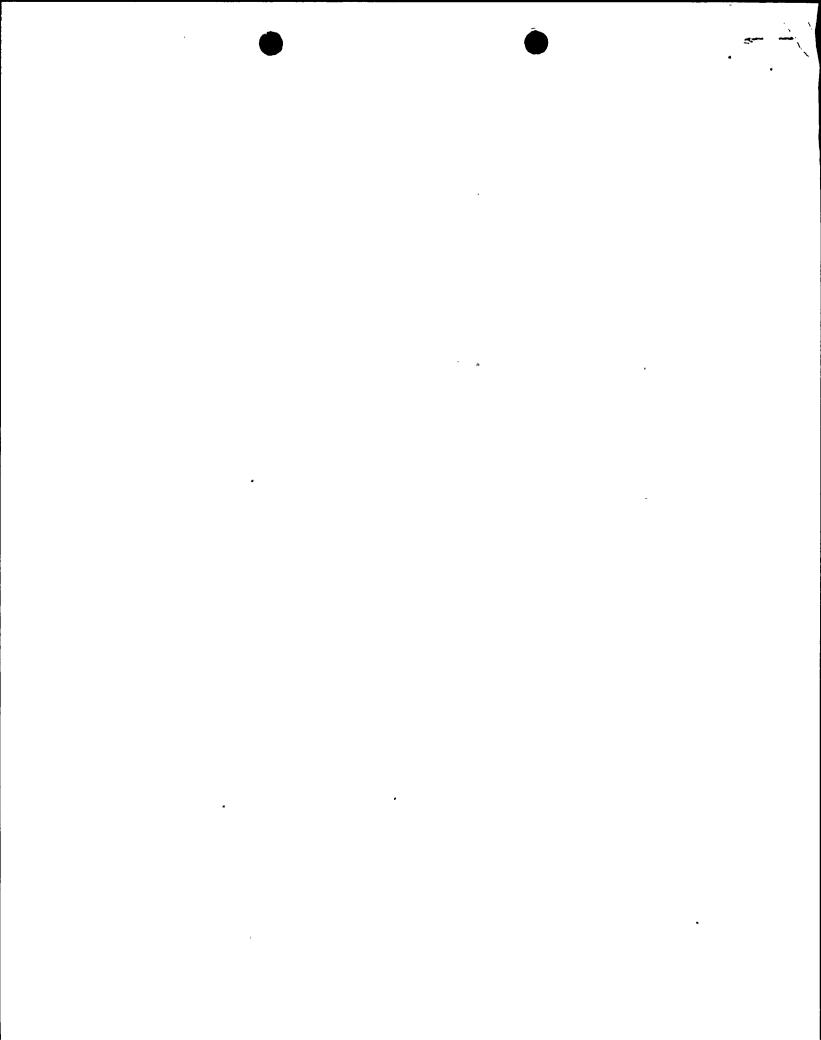
My plea to you is: do your best to get out. Think first of the people of California.

Sincerely,

Mrs. Emory L. Morris

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UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

In the Matter of)		
PACIFIC GAS AND ELECTRIC COMPANY	:)	Docket No.(s)	50-275
(Diablo Canyon Nuclear Power Plant, Units 1 and 2)	.)		50-323
) }	•	

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document(s) * upon each person designated on the official service list compiled by the Office of the Secretary of the Commission in this proceeding in accordance with the requirements of Section 2.712 of 10 CFR Part 2 -Rules of Practice, of the Nuclear Regulatory Commission's Rules and Regulations.

Dated at Washington, D.C. this 10th day of april

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UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

In the Matter of)

PACIFIC GAS AND ELECTRIC COMPANY)

Docket No.(s) 50-275

50-323

(Diablo Canyon, Units 1 and 2)

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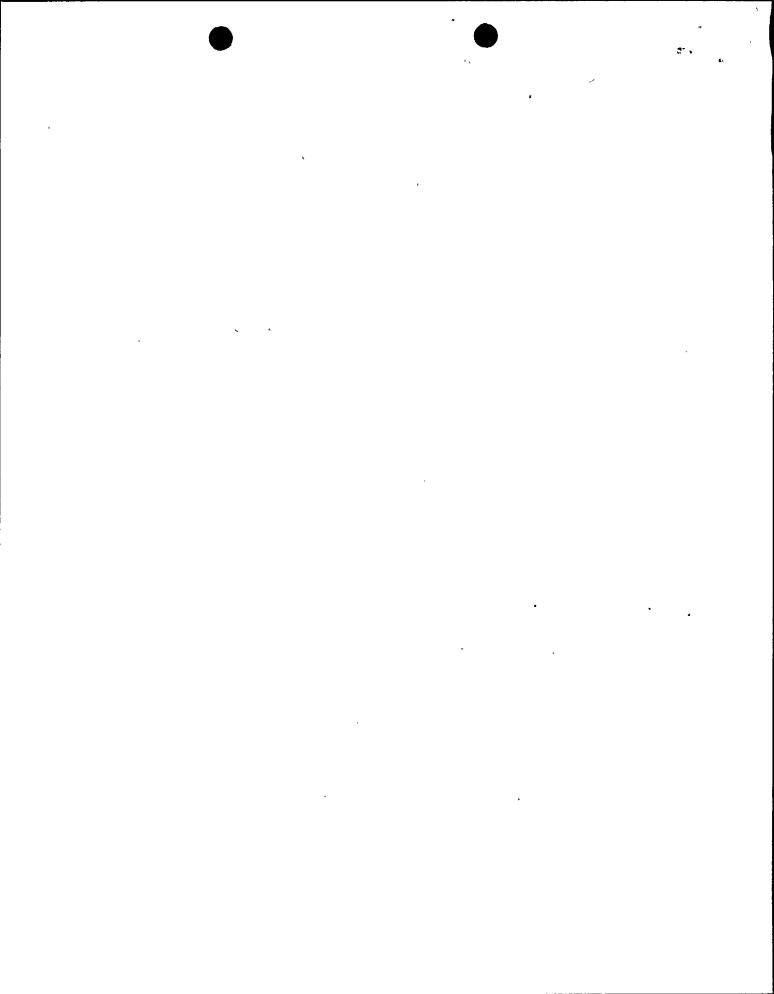
FOR INFORMATION

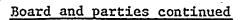
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Public Affairs Officer, Region V

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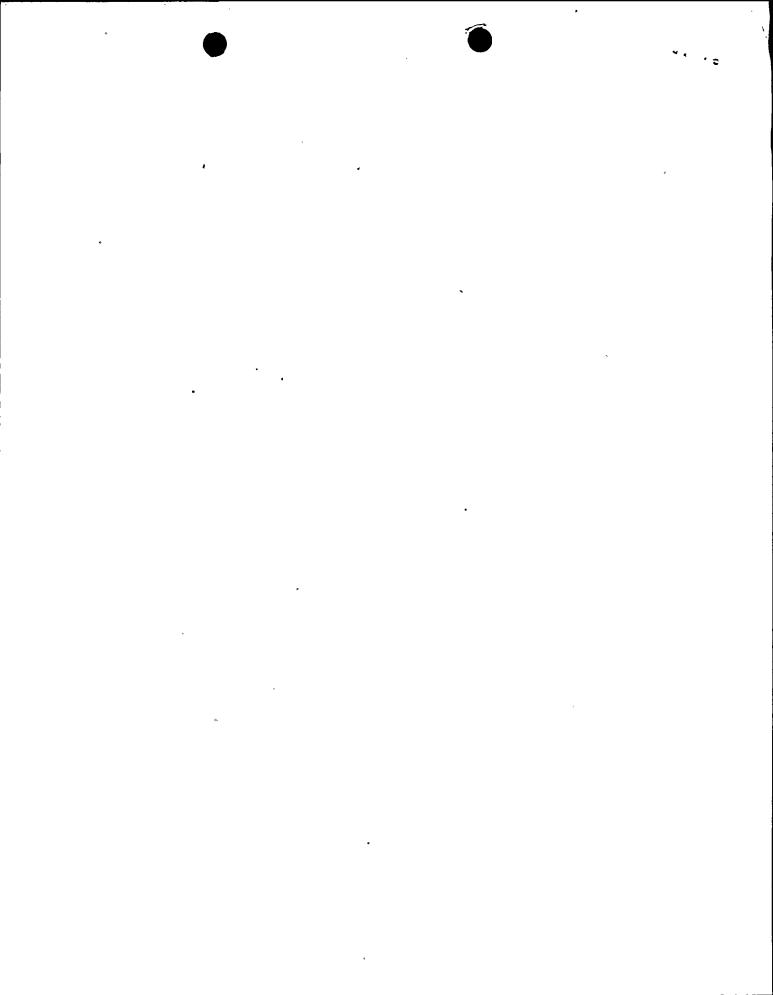


Richard S. Salzman, Esq., Chairman Atomic Safety and Licensing Appeal Board

U.S. Nuclear Regulatory Commission Washington, D.C. 20555

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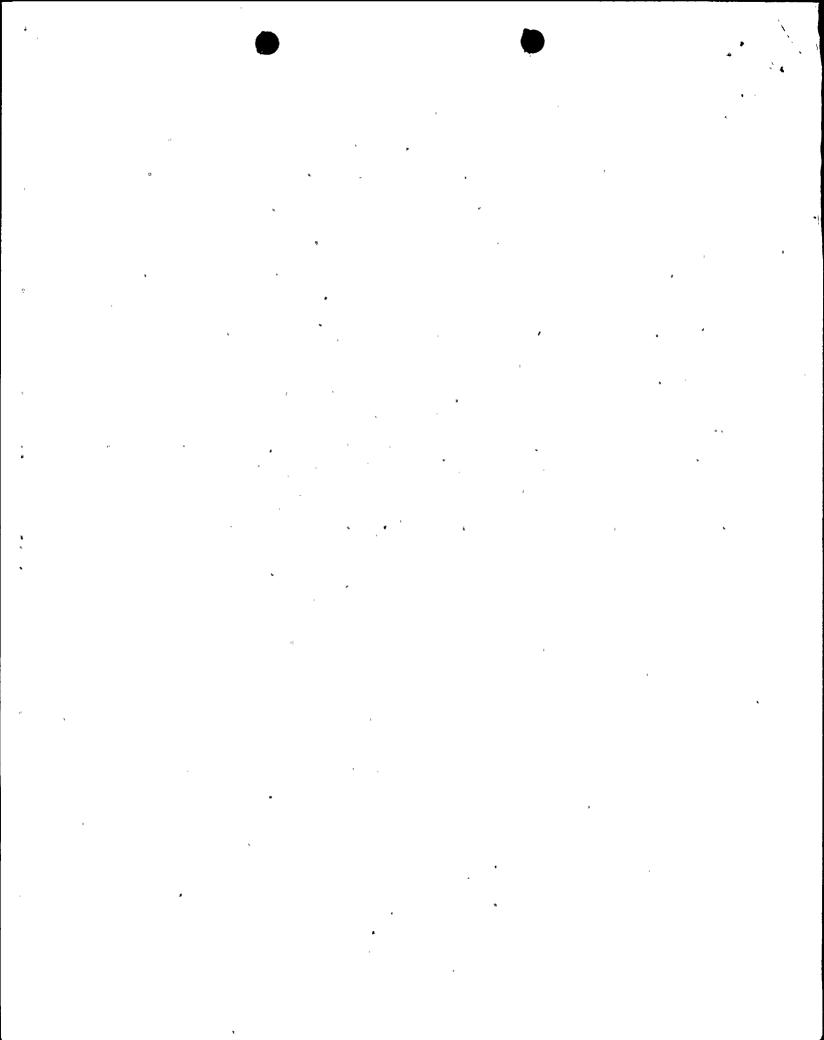
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UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	Docket Nos. 50-275-0.L. 50-323-0.L.
PACIFIC GAS AND ELECTRIC COMPANY	` {	
(Diablo Canyon Nuclear Power	. {	
Plant, Units 1 and 2)	'	

APPLICANT
PACIFIC GAS AND ELECTRIC COMPANY'S
REBUTTAL TO
JOINT INTERVENORS PROPOSED
FINDINGS OF FACT AND CONCLUSIONS OF LAW

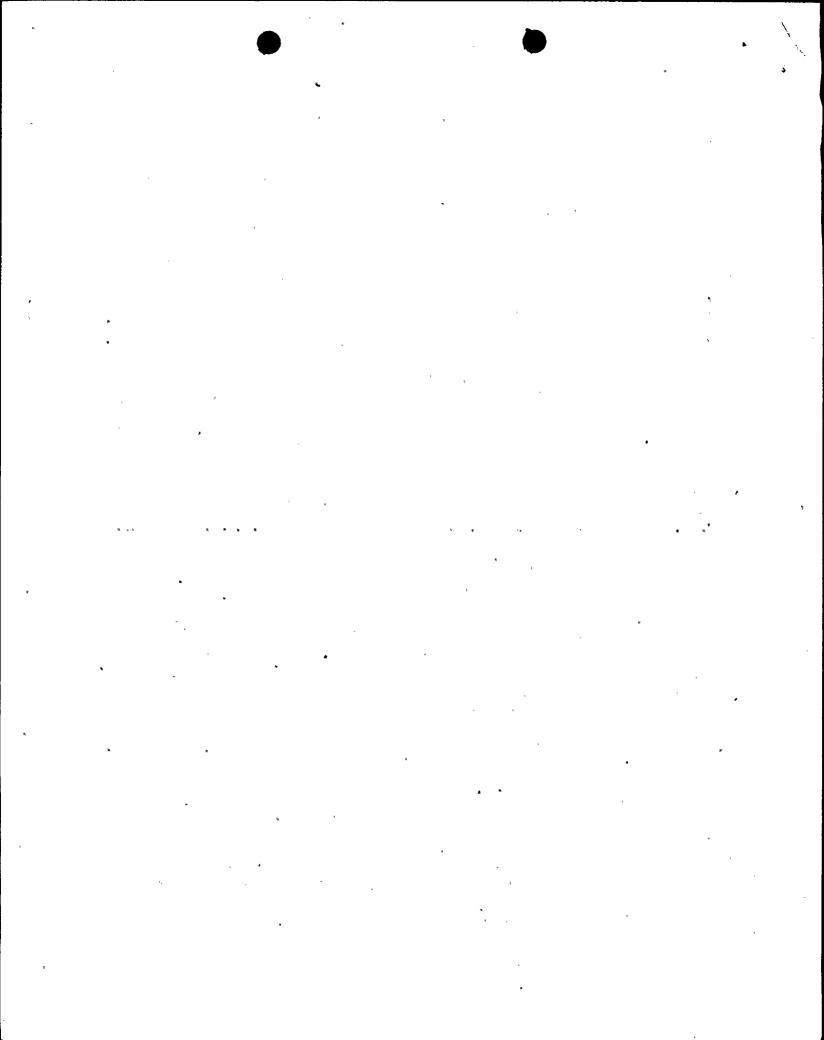


INTRODUCTION

On March 25, 1979, Joint Intervenors filed 126 proposed findings of fact and conclusions of law. Of the 126 proposed findings, the first 29 were of a historical nature (some relevant and some not) or in the form of conclusions and the last 2 were proposed conclusions of law. The so-called proposed findings of fact consist of some 94 consecutively numbered paragraphs (30-124). Of those 94, 52 fall into one or more of the following categories:

- No citation to the record for any portion of the proposed finding (proposed finding nos. 34-36, 38-40, 42-44, 46-47, 60-61, 64-66, 68, 71, 74-78, 82, 85, 92, 100)
- II Citation to the record for only a portion of the proposed finding (30, 33, 45, 70, 97, 98, 99, 115, 120)
- III Citations which prove to have nothing whatsoever to do with the proposed finding (58, 79)
 - IV Citations where the record as cited is contrary to the proposed finding (37, 49, 52, 54, 59, 72)
 - V Citations to many, and in some cases hundreds, of pages of the record (56, 82, 83, 84)
 - VI Proposed findings which are clearly arguments or conclusions and not facts' (75-78, 86-87, 100, 124)

Applicant respectfully submits that this Board should, at a minimum, ignore the above-enumerated Joint Intervenors' proposed findings (hereinafter "J.I.P.F."). Section 2.754



of the Nuclear Regulatory Commission's Rules of Practice provides in pertinent part as follows:

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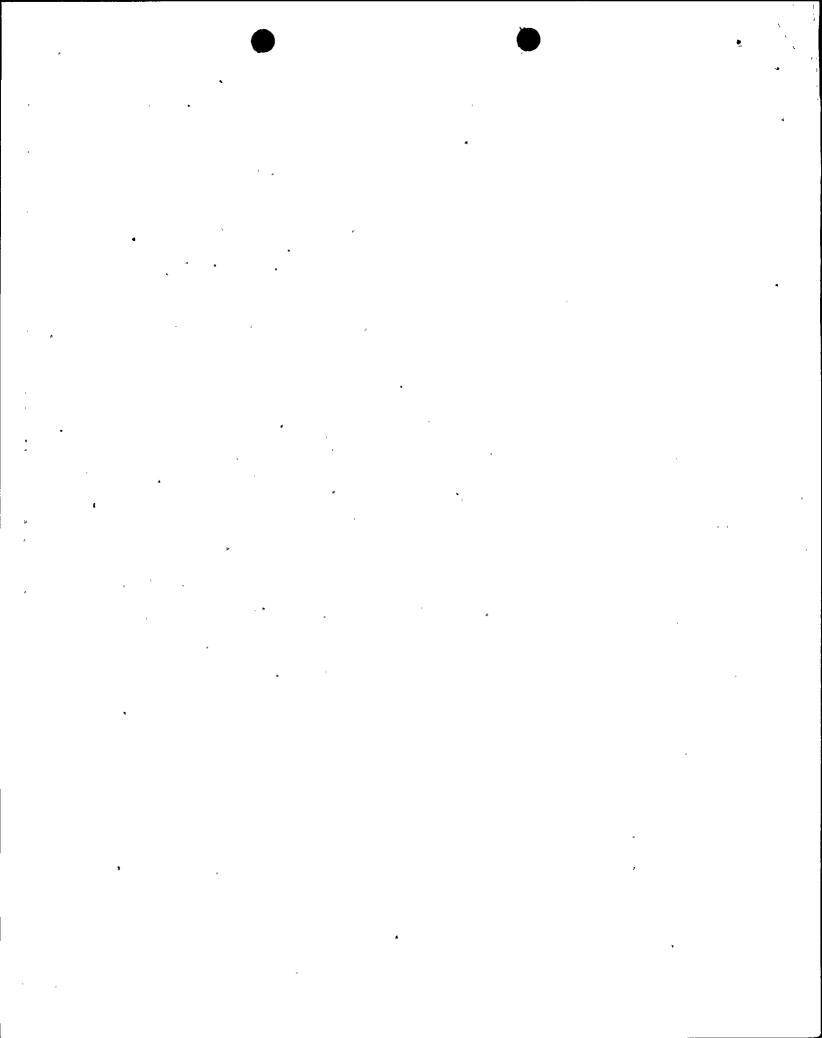
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(c) Proposed findings fact shall be clearly and concisely set forth in numbered paragraphs and shall be confined to the material issues of fact with exact presented on the record, citations to the transcript of record and exhibits in support of each proposed finding.

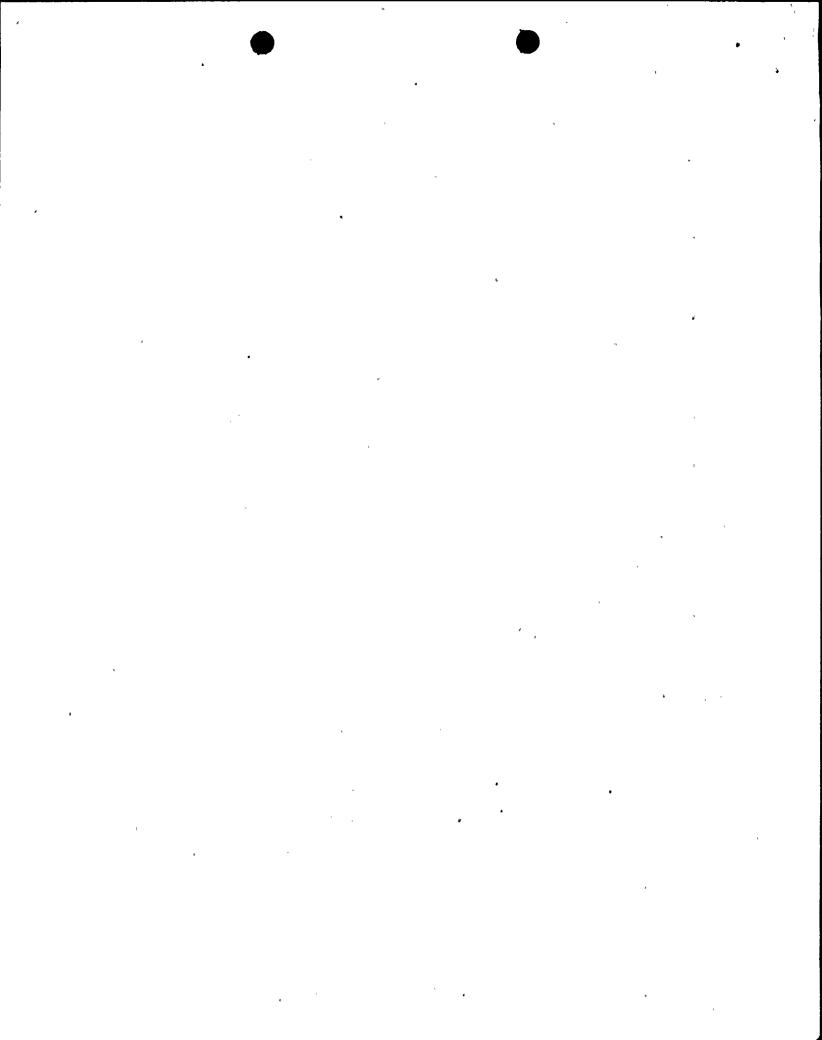
While the regulation does not mandate any specific sanction for deficient proposed findings, case law and common sense dictate that this Board should not be required to search out the record (over 10,000 pages of transcript plus thousands of pages of exhibits) in search of support in the record for Joint Intervenors' proposed findings. The very first sentence under Joint Intervenors' "FINDINGS OF FACTS" (J.I.P.F. 30) is illustrative of one of the many problems such a practice Intervenors state "[c]onstruction on both units of the DCNPP was well underway when the existence of an active geologic fault offshore and running with [sic] 7 kilometers (approximately 2-1/2 miles) of the DCNPP was confirmed." No citation for this proposed. "finding" is given. We would hope, however, that the Board would take judicial notice of the fact that any metric conversion table would show that 7 kilometers equals 4.345 miles or that 2-1/2 miles equals 4.03 kilometers. Are Intervenors proposing the Hosgri fault runs 4.345 miles from the plant site? 2.5 miles? One can only guess as there is no citation to the record and Applicant



would submit that nowhere in the record is there any such evidence. There are numerous other examples of proposed findings with no citation to the record, presumably because nothing in the record supports them. Rather than belabor the point here, however, many of these proposed findings will be discussed in the point-by-point rebuttal, infra.

More serious than the example given above are those instances where on review of the cited authority one finds that it is contrary to the proposed finding. For example, proposed findings 73 and 74 cite USGS Circular 672. As discussed, with specific citation to the record, infra, at pp. 10 and 22, the use of USGS Circular 672, Table 2, is totally different than proposed by Intervenors (see also A.P.F. 62 and 63).

The case dealing most comprehensively with an intervenor's failure to file adequate proposed findings is Consumers Power Company (Midland Plant, Units 1 and 2), ALAB-123, RAI-73-5, 331 (1973). In that case, the Appeal Board was reviewing an initial decision authorizing the issuance of construction permits. Separate sets of exceptions to the decision were filed by two separate intervenors. Prior to issuing its initial decision, the Licensing Board requested each group to submit proposed findings of fact. One intervenor stated that it had not chosen to search the record and submit citations. The other intervenor submitted thirty-seven proposed factual findings, but provided no



record citation for any of them. The Licensing Board felt that the intervenors' failure to submit adequate proposed findings could be treated as a default, and that it could strike the interventions and treat the proceeding as uncontested. The Licensing Board declined to do so, however, in view of the fact that the intervenors had participated extensively in the proceeding. The Licensing Board specifically left open for consideration by the Appeal Board the effect of the intervenors' failure.

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The Appeal Board stated that it was "not inclined to dismiss a party from further participation as a result of its failure to file proposed findings." The Appeal Board was unwilling, however, to ignore the intervenors' failure and so concluded that it could take the failure into account in ruling upon the exceptions filed by the intervenors. The Appeal Board determined that the challenged findings of the Licensing Board met its standard of specificity and further noted that "intervenors' failure to file adequate proposed findings and conclusions gives a hollow ring to their claim that the Licensing Board should have gone into greater detail." Id. at 357, n. 164.

In Omaha Public Power District (Fort Calhoun .

Station), LBP-73-24, RAI-73-8, 591 (1973), the intervenor filed proposed findings which the Board described as largely "conclusionary and argumentative." The applicant argued that the filing amounted to a default and that the Licensing

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Board should act accordingly. The Licensing Board decided to accept the proposed findings "as a bonafide effort to comply with §2.754 for whatever value they may serve." The Licensing Board then added:

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Since the Board is fully capable of rendering its Decision without reference to the proposed findings of fact and conclusions of law submitted, the party most potentially damaged would not be the Applicant. Rather it would be the one who fails to take advantage of its opportunity to articulate its position through the submission of adequate proposed findings of fact and conclusions of law, and who may thus waive its right of appeal on some issues. [Id. at 594, citing Consumers Power Company, supra.]

Based on the above-quoted language, it appears that the Board felt it could ignore the deficient proposed findings in reaching its initial decision. Applicant would respectfully submit that this Board should thus ignore all proposed findings containing either improper, inadequate or no citation.

POINT-BY-POINT REBUTTAL

Ι

J.I.P.F. 30-40 are an attempt at an "historical" overview of certain events between the discovery of the Hosgri Fault and the issuance of the ACRS letter. These findings are, for the most part, not supported by citation to the record (J.I.P.F. 30, 33-36, 38-40) or, in one case (J.I.P.F. 37) a review of the specific citation reveals that the evidence is contrary to the proposed finding. Proposed finding 37 states, in pertinent part, that Supplement 4 to

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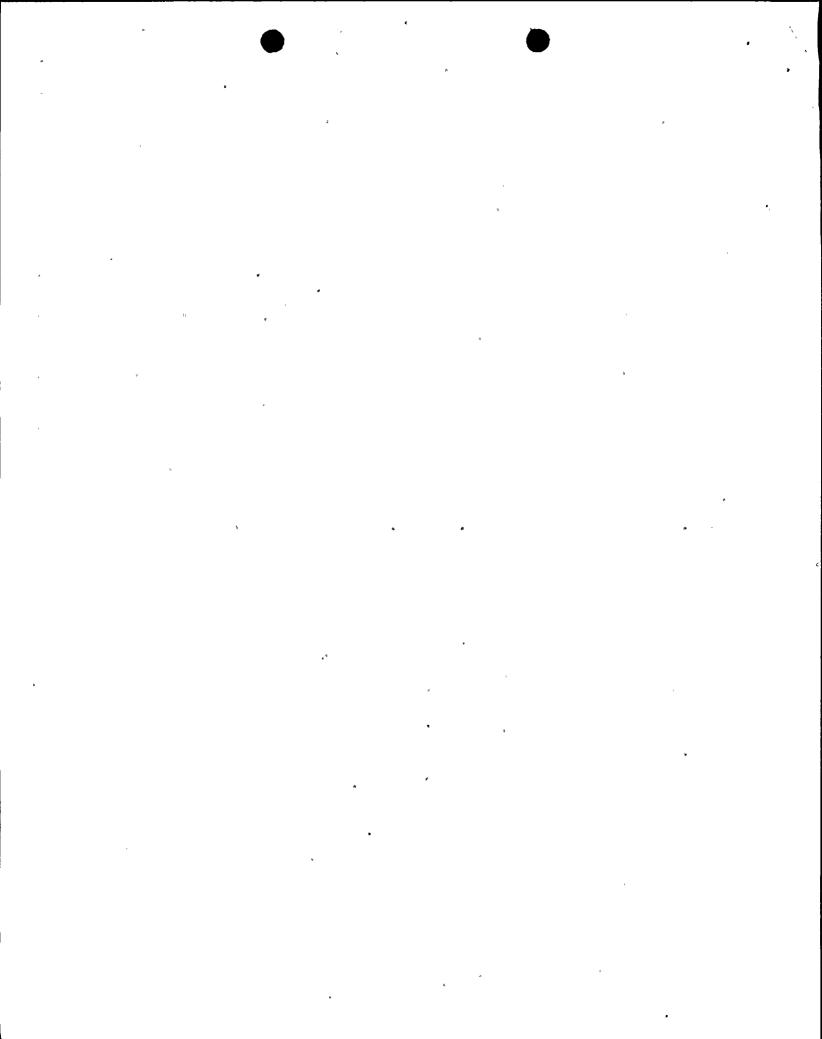
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the SER "designated the 0.75g anchor point for the response spectrum to be used in the reanalysis, referenced the USGS recommendation to use the values in Table 2 of the USGS Circular 672 to define the ground motion in the free field [syntax sic]." Applicant has made a diligent search of the entire supplement referenced (as there was no specific citation) and is unable to find language leading to such a conclusion. What one does find at SER Supp. 4, pp. 2-4, is that the USGS "report is intended to form a basis for deriving an effective acceleration for input into the process leading to a seismic design basis." In addition, the USGS report itself (Appendix C to SER Supp. 4) states that "[w]e repeat our opinion that, for sites within 10 kilometers of the surface expression of a fault, the description of maximum earthquake ground motion by means of a single acceleration may not be an appropriate representation." (SER Supp. 4 at C-16, emphasis added.)

Proposed finding 38, again with no citation to the record, is simply false where it states that "[t]he Newmark spectra were used for this reanalysis." As set forth in Applicant's proposed findings (hereinafter "A.P.F."), with specific citation, both the Blume and Newmark spectra were used in the reanalysis, the more conservative spectrum being used in each instance (A.P.F. 74).

While proposed finding 39 (no citations) is in part true in stating that Drs. Trifunac and Luco were "two

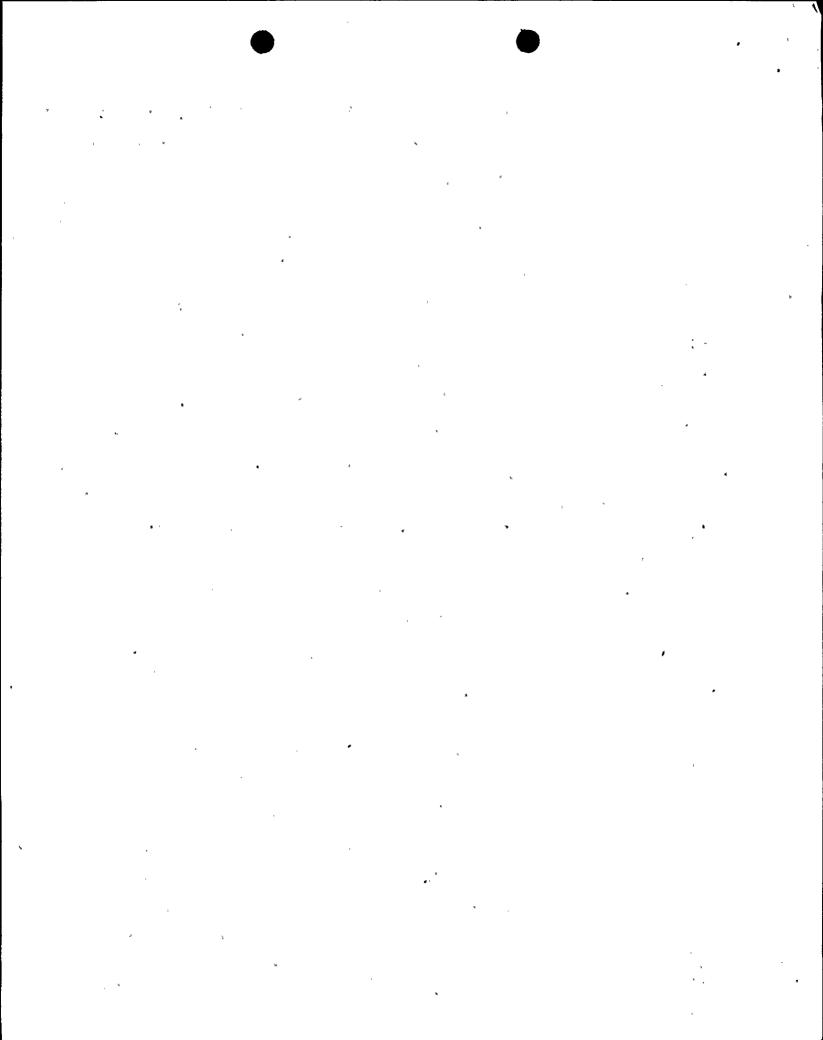


consultants deeply involved" in the reanalysis of Diablo, Intervenors conveniently omit the fact that they were but 2 of 11 such consultants (Tr. 9184). Proposed finding 40 is totally improper and should be struck by the Board. The finding, again unsupported by citation, would have this Board consider an incorrectly paraphrased portion of the ACRS letter. The Board has ruled on several previous occasions in these proceedings that such a procedure is improper.

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Proposed findings 41 through 63 deal primarily with Intervenors' arguments with little citation to the record, as to what they hope the Board will find, even though unsupported by the evidence. Proposed finding 42 is obviously an ultimate conclusion to be decided by this Board with, once again, no citation to the record. The conclusion is contrary to the testimony of Drs. Smith, Bolt, Trifunac, Frazier and others, all as set forth in Applicant's proposed findings (A.P.F. 48, 49, 54) wherein it was established that a magnitude 6.5 was the maximum credible earthquake on the Hosgri. In addition, others testified that the assignment of a 7.5 magnitude earthquake to the Hosgri was very conservative (e.g., Hofmann testimony following Tr. p. 8522 at 1-5, Tr. 8539; Dr. Stepp testimony following Tr. 8484 at 12, 31, 32).

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Proposed finding 43 (again, no citation) is simply contrary to the evidence (Tr. 5334-5338). Such testimony is obviously contradictory to Intervenors' unsupported proposed findings.

In discussing the 1927 earthquake (J.I.P.F. 44, 52, 60 and 62), Intervenors fail to give citations (J.I.P.F. 44 and 60) and mislead the Board. For example, it is stated that USGS takes the position that "no evidence precludes occurrence of the 1927 earthquake on the Hosgri fault" citing a 1976 USGS position (SER Supp. 4, p. C-10) and ignoring the fact that recent work done by Hanks (1977) and Smith (1978) make it, "within a reasonable degree of geologic certainty . . . highly unlikely that the 1927 Lompoc earthquake occurred on the Hosgri" (Smith testimony, pp. 23, 29). A far cry from Intervenors' proposed finding 52 which states that "Dr. Smith's calculations suggest that the Lompoc structure, not the Hosgri fault, was the source of the 1927 earthquake." [Emphasis added.] Intervenors also fail to mention the testimony of Dr. Stepp which states that the NRC staff considers the weight of the available evidence to support the conclusion that the 1927 earthquake was not centered on the Hosgri fault and most likely occurred on structures in the Transverse Ranges (Stepp Testimony at 31).

Intervenors similarly mislead the Board in proposed finding 54 when it is stated that "Dr. Graham presented testimony suggesting that the Hosgri fault is part of a

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continuous zone of deformation known as the San Gregorio - San Simeon - Hosgri fault zone." [Emphasis added.] In fact,

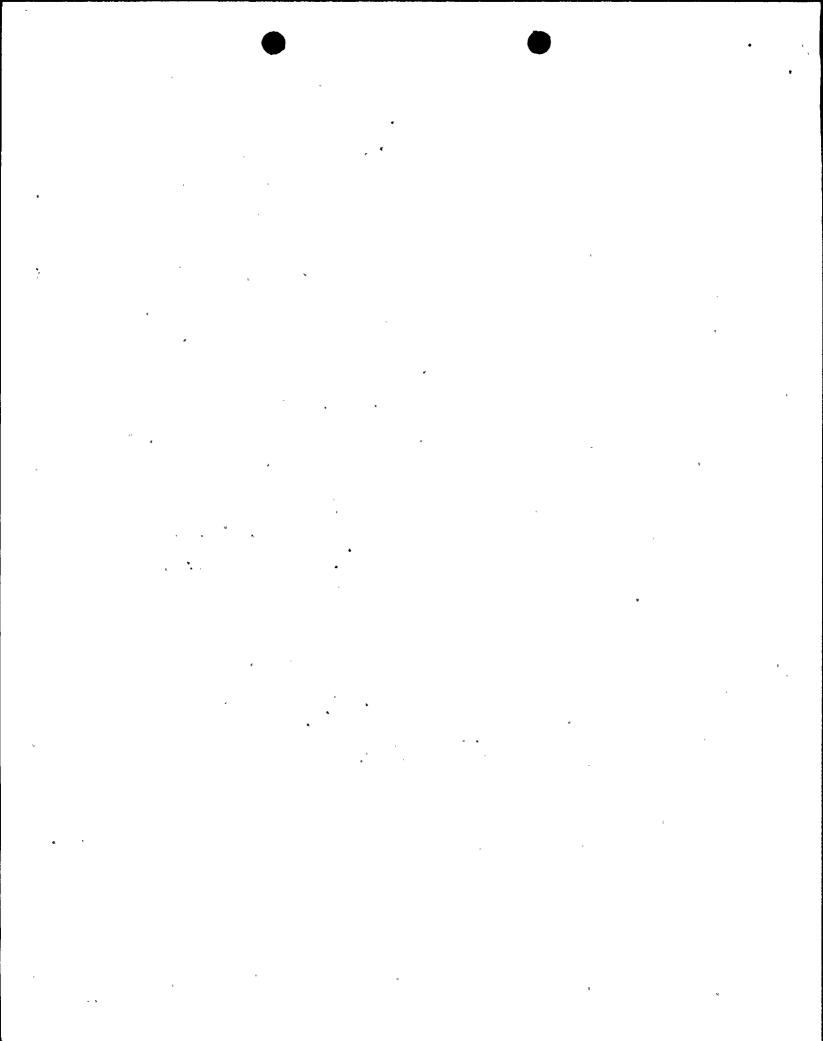
Dr. Graham testified as follows:

But as far as <u>present</u> continuity of the <u>system</u> or as far as recency of movement, these offset pairs are insufficient information, they don't address that <u>point</u>. They simply require that at the time of strike - slip there was continuity. [Tr. p. 6197, emphasis added.]

and,

Our conclusions have no resolution with respect to the <u>present</u> continuity of that full fault <u>system</u>. [Tr. p. 6363, emphasis added.]

Clearly, Dr. Graham did <u>not</u> testify, nor did he even remotely "suggest" that the San Gregorio - San Simeon - Hosgri fault <u>zone is</u> continuous. He simply stated that if his, admittedly "theory" (Tr. p. 6233) were correct, then a continuous fault <u>system</u> must have existed in the past. Similarly, Intervenors state (J.I.P.F. 49) that it is the view of Graham/Dickerson [sic]/Hall . . that the Hosgri fault is part of a continuous, thorough-going [sic] fault -- the San Gregoria [sic] - San Simeon - Hosgri fault. While, for a pleasant change, Intervenors do supply citations, a review of those citations reveals no such testimony. Dickinson did not testify, but the articles that he and Graham authored are in evidence as Intervenors' Exhibits 33 and 48 and they are absolutely mute as to any present continuity of the three separately named faults.



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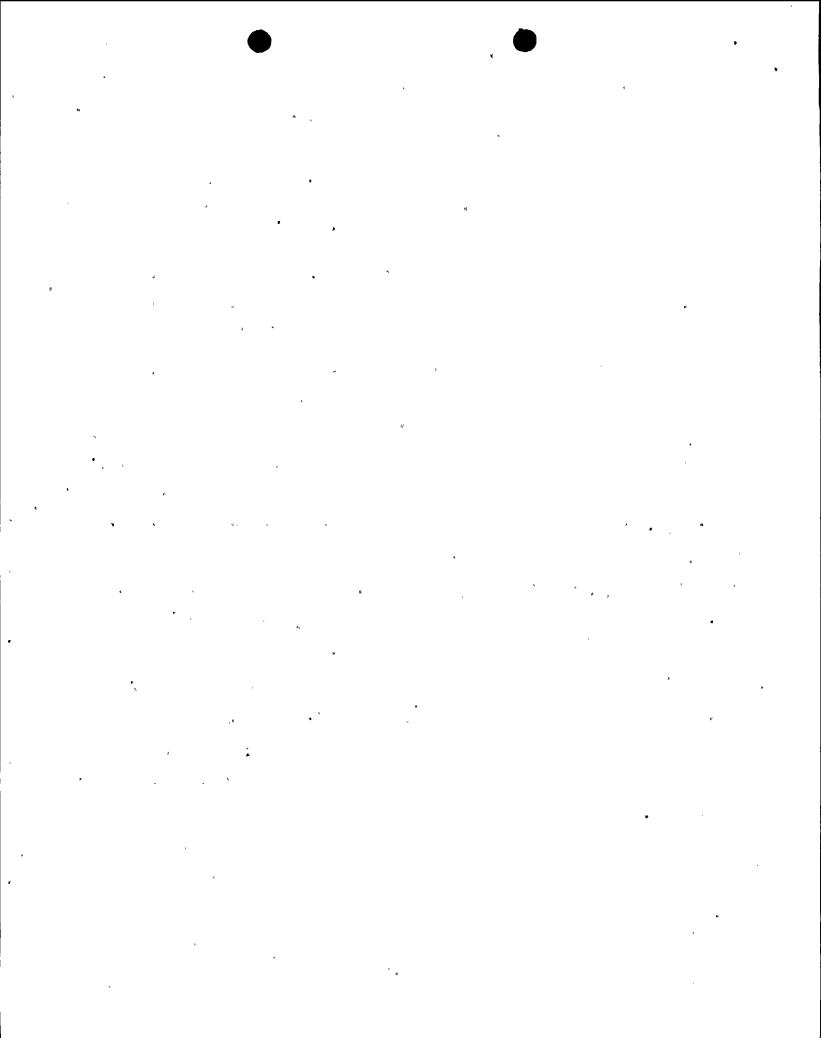
. J.I.P.F. 64 through 74 deal, with very little citation or substance, with the subject of ground motion. Proposed findings 64-66 have no citations and are in part argumentative and in part conclusionary. The point of proposed findings 64 through 69 and 73 through 74 seems clearly to be that USGS circular 672 requires the use of a 1.15g acceleration for any response spectrum used in design analysis. Such a conclusion is clearly unsupported in the Intervenors would have this Board find that such is record. the position of USGS (J.I.P.F. 67) despite the overwhelmingly contrary testimony of Dr. Stepp (Testimony 33-34); USGS witness Devine (Tr. 8328); Dr. Newmark (Tr. 8562, 8563) SER Supp. 4, Appendix C, p. c-16, and the circular itself, Intervenor Exhibit 45. Perhaps the clearest testimony was that of Mr. Devine:

For example, the peak g values that we offer in 672, we have tried to word this report to say that that isn't mandatory, that those numbers automatically be assumed to be the anchor for the response spectrum: that's not what we're saying. And that's why we went to this paragraph to describe ground motion as best we can, leaving the use of that and

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the development of the response spectrum to the engineering domain where it belongs in the case of this high g value. It's an engineering technique to go through the process of developing the response of the structures based on this ground motion, and we [USGS] do not presume to comment on that. [Tr. 8328.]

In presenting proposed findings regarding witness Brune's testimony (J.I.P.F. 69-71), Intervenors again mislead. After stating that high accelerations are possible they say that the data base is "too limited to be sure what the probabilities are." What they fail to point out is the testimony of Dr. Blume which states the probabilities would be low for any given earthquake (Tr. 8144). They also fail to point out that none of the "possible" causes of high accelerations are ever testified to by Dr. Brune as specifically respects the Diablo Canyon site except focusing and, for that phenomena, Dr. Brune admits that focusing, based on fault mapping, is highly improbable for the Diablo site (Tr. 8023-8025).

Intervenors spend just two sentences (J.I.P.F. 72) informing the Board that the Board should somehow find that Dr. Newmark agrees that the 1.15g acceleration from USGS circular 672 should be used in this case as "justifiable and rationale." We would respectfully refer the Board to Applicant's proposed findings 61 and 63 and request that the Board read Dr. Newmark's testimony at 8609, et seq. to see once again

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yet another example of Intervenors' citation being contrary to the proposed finding.

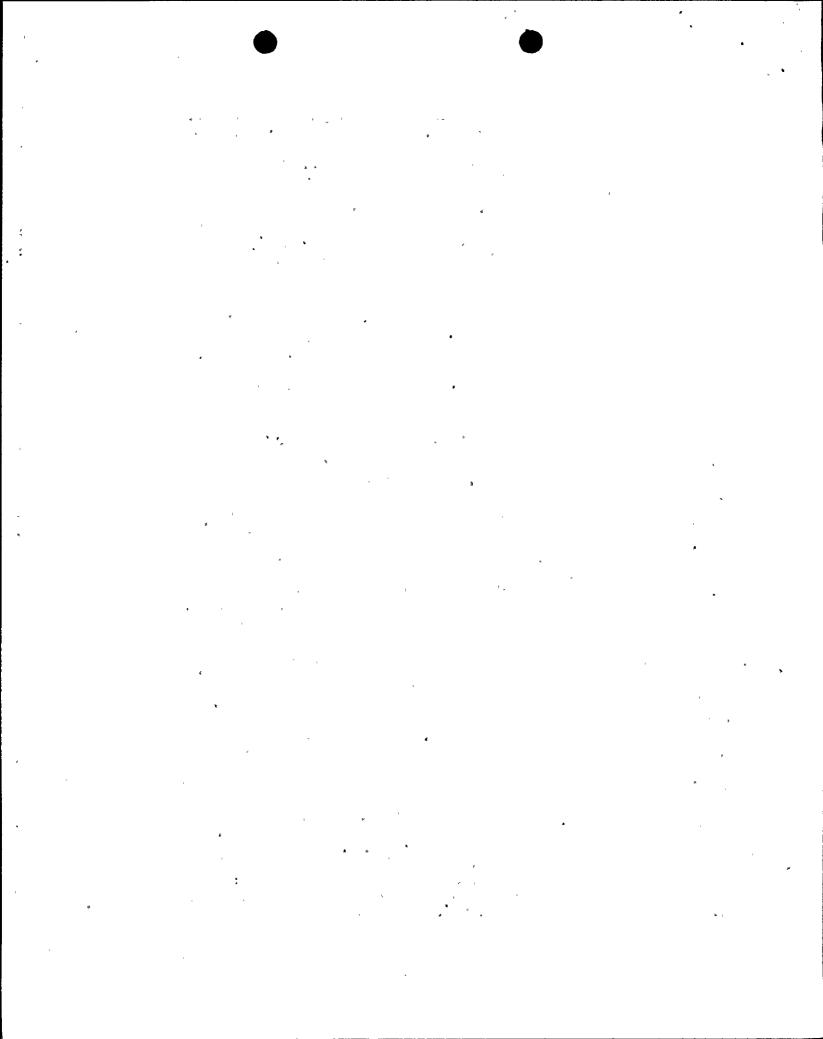
Finally, proposed finding 74, with no citations and conclusionary in nature, is contrary to the evidence of this case. We would submit that the following testimony of Dr. Seed is dispositive of the question of what acceleration should be used for the ground motion design criteria.

Dr. Luco states on page 8867 of the testimony that there are two issues that he finds troublesome: one, the use of an effective peak acceleration by the Applicant, and, two, the use of the tau effect in evaluating the base motions for the various structures.

First I would like to say that I agree with what I believe to be Dr. Newmark's testimony that while the concept of an effective peak acceleration is a valid concept for use in structural design, it has not been used and established in the design criteria in this case.

It is NRC practice, as I understand it, and I've seen a lot of plants and worked on a lot of plants which I passed through the review of NRC, to select a conservative earthquake from which to set ground motion design criteria. to [sic] select for this earthquake a mean value of peak acceleration that it could produce at the site, and then to use this acceleration as the anchor point for a very conservative response spectrum shape.

For a magnitude 7.5 earthquake on the Hosgri fault, the mean peak acceleration developed at the site would not be expected to exceed 0.75g. Accordingly, there is no need to introduce the concept of an effective peak acceleration since this is the value already being used.



There are several ways by means of which the selection of 0.75g can be shown to be appropriate and conservative. I believe the best evidence comes from the data presentation of Hanks and Johnson, supplemented by the accelerations recorded in other recent earthquakes and discussed in various pieces of testimony presented in these hearings. [Tr. 10,102, 10,103.]

* * *

Now on this particular plot, I have done what Dr. Luco did in one of his more recent reports to the NRC. He took the three strongest records he could find. What I have done is take the four strongest records I could find. I can do this because we have more records now than we had when Dr. Luco wrote his report.

They are for the Naghan earthquake in 1977, the Pacoima earthquake in 1971, the Koyna record in 1967, and the Gazli earthquake in 1976. The magnitudes range from 5.5 to 7.2. And you'll notice that it's appropriate to include the 5.5 magnitude earthquake because in point of fact although the magnitude for that is the lowest of the four records included, that the peak acceleration for that is higher than that for any of the other records that are shown there.

So what I've done is pick out the four strongest horizontal component records that are available at the present time and averaged those accelerations, and the average of all those is 0.8.

Now if the average of the four strongest is 0.8 then the mean clearly must be less than 0.8. And therefore I cite this as another example and as another simple way of showing that the mean acceleration produced by a Hosgriearthquake would be not greater than 0.75g which is the value being used to

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anchor the spectrum for the design of the Diablo Canyon Plant.

I conclude from these results that there is no need to introduce the concept of an effective peak acceleration in this case. The actual mean acceleration associated with the magnitude 7.5 earthquake of the Hosgri fault is less than 0.75g. And this is the value used to anchor the spectrum in accordance with customary NRC procedures.

Accordingly, if no peak acceleration is involved in the procedure, there is no reason for Dr. Luco to find it troublesome. [Tr. 10,107-108.]

IV

Proposed findings 75 through 87, again, woefully lacking in citations to the record, are Intervenors conclusionary and argumentative attempt to place before the Board facts not in the record, contrary to the evidence, or against the full weight of the evidence. Proposed findings 75-78 are totally devoid of any citation, are argumentative and clearly should be disregarded. Proposed finding 79 attempts to discredit Dr. Newmark by raising an apparently "disconcerting" inconsistency by pulling one sentence of testimony from the hearings and comparing it with one sentence from a report dated some years ago (SER Supp. 5 [not 4, as cited] at p. C-2). Applicant would respectfully request the Board to reread the transcript at 9286 et seq. where Intervenors' counsel attempted and failed the first time to point out this "inconsistency" of Dr. Newmark's.

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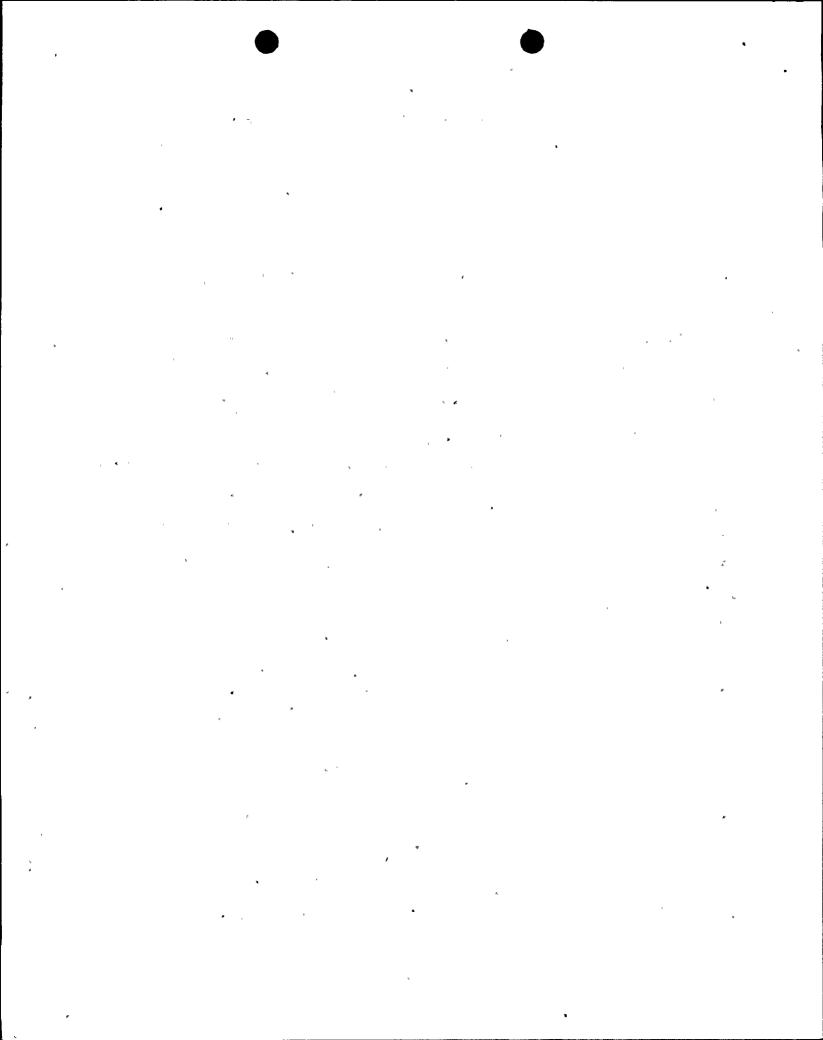
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As respects proposed finding 82, again absent specific citations to the record, search as one can, one cannot find the words "double bookkeeping," or anything analogous, in Board Exhibit 2(c). The phrase, and concept, appear for the first time in the proposed finding.

Intervenors devote two whole sentences to "tau" in proposed finding 83. The rebuttal testimony of Drs. Blume, Frazier and Seed (Tr. 10,123-126; 10,127-136; 10,144-160, respectively) shows quite convincingly that Drs. Luco and Trifunac were mistaken in their beliefs as to both what the purpose and results of Applicant's work in this area were.

As to damping, Intervenors once again fail to give specific citations and treat the subject matter in two sentences (J.I.P.F. 84). Perhaps the best answer to their contentious proposal is the testimony of NRC staff witnesses Knight and Kuo (Tr. 9818-9824).

The record reflects, I believe, that both Dr. Luco and Dr. Trifunac have recommended the use of five percent structural damping as opposed to the seven percent structural damping employed for the reanalysis of the Diablo Canyon Plant.

I would like to indicate whether or not the Staff was aware of their recommendation prior to the testimony given in this proceeding.

- A (Witness Knight) Yes, we were.
- Q And would you please indicate whether or not the Staff took account or considered their recommendation in performing its review?

• . • . •

- A Yes, we did.
- Q And would you give us any conclusions that you arrived at in performing your review of their recommendation?
- A Well, the bottom line, as it were, was that we concluded that the seven percent structural damping as published in Regulatory Guide 1.60 was appropriate for the reanalysis of the Diablo Canyon Plant.

damping Regulatory Guide values were developed after review of all of the data known to us and known our consultants. These data were obtained from forced vibration of structures, including reactor buildings and commercial buildings, and from actual earthquake data where available, were supported by laboratory tests of what I would call structural elements, that is a beam section of a wall.

While it is true, as Dr. Luco pointed out, that it's currently impossible to separate what called soil damping and radiation damping from true structural damping in the tests of actual buildings, all of the data taken from the actual building tests, be they natural earthquake or forced vibration tests, showed an unquestionable trend toward higher damping as the strain rates increased.

That is, if you test at very low levels, you would find very low damping, and as you went on and caused greater strains in both the soil and the building, you would see higher and higher damping. And in order to put that in perspective, I think perhaps I ought to make a point here.

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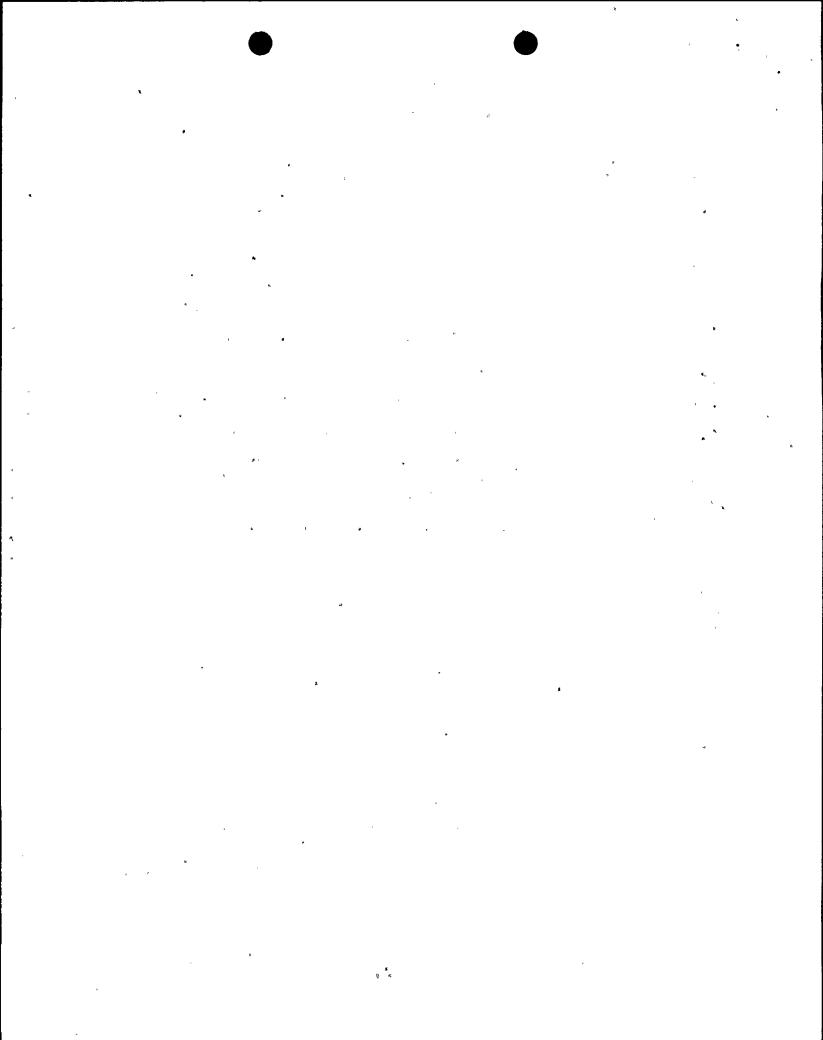
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Although Dr. Luco is certainly aware of it, in the record I don't think it comes out clearly that his criticisms of the fact that all the data is tainted, if you will, with soil damping doesn't mean that the test information we get just indicates something like seven percent damping, and so a lot of that has to be due to soil and therefore your damping is somewhat lower.

In reality what we find is that the the damping measured in building-soil system is much higher than seven percent. A little over a year ago I had occasion to visit with the Japanese and discuss what I think is perhaps one of the best forced vibration tests run on a reactor structure to date at the in that And Tokai 2 reactor. instance damping in the order of 20 percent or more was seen, still at relatively low levels compared earthquakes, but at somewhat higher forced vibration levels than anyone else has used to date.

when we're looking for fraction of the damping that is actually present due to the structural damping, we start off with a base considerably higher than seven And now the question is percent. how much of that higher damping value can we really attribute to It's at that point the structures. that we turn toward the laboratory tests we've one of which seen; Dr. Luco referenced was put into the record by the Applicant was a shear wall. A reinforced concrete shear wall was tested in laboratory and at strain levels in the vicinity of the yield level, and that's what we're talking about for the Hosgri event and Diablo Canyon.

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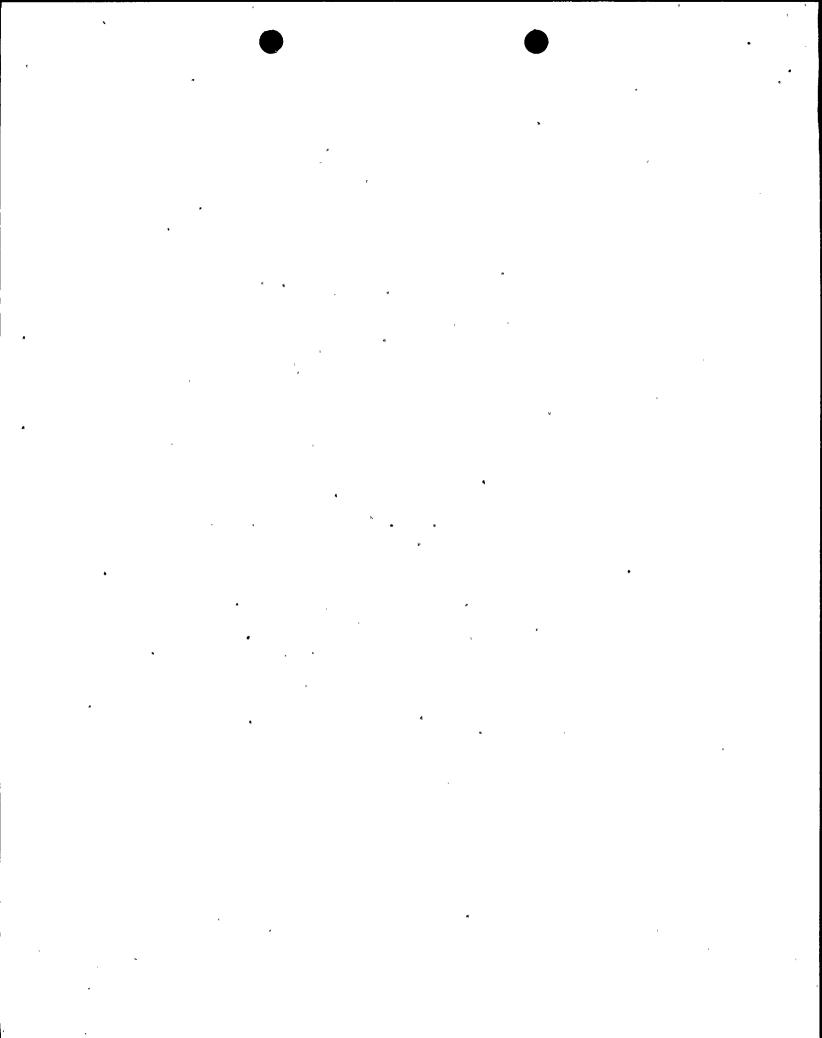
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We see pure structural damping in the range of ten or maybe a little more percent. So putting all of this evidence together, we believe it becomes evident that the seven percent structural damping for reinforced concrete is an appropriate and conservative value.

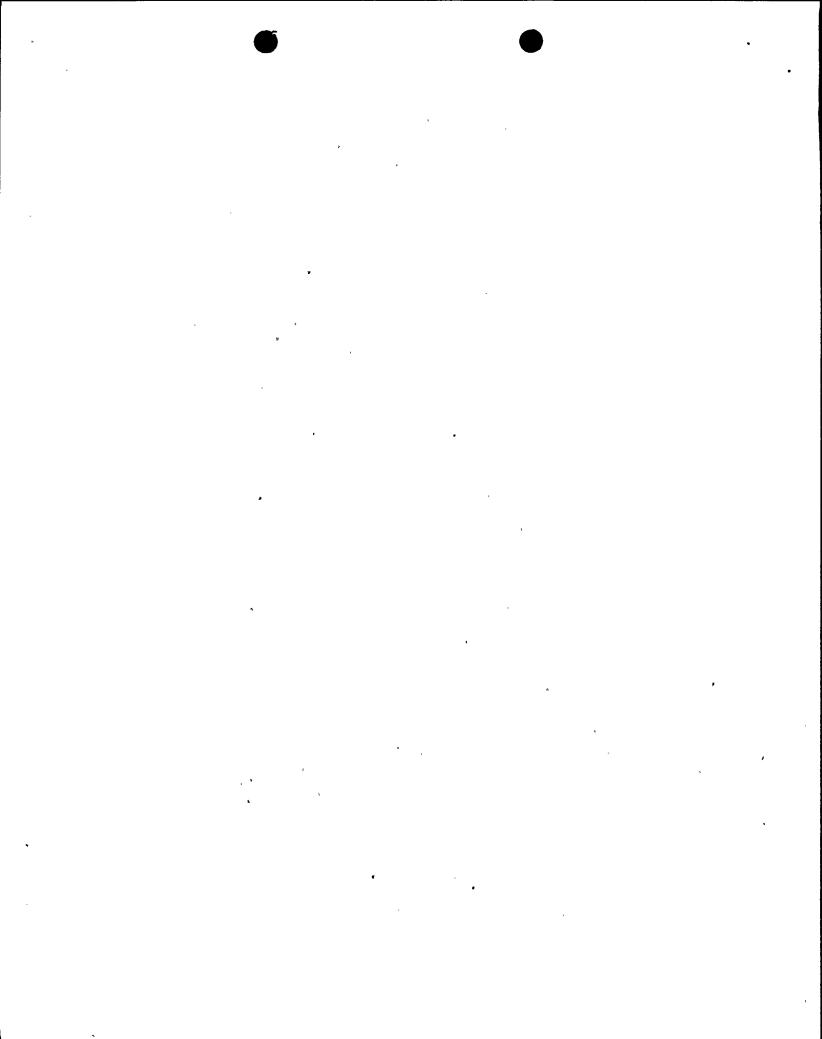
Drs. Luco and Trifunac were critical of this damping value consistently, but to our knowledge they have never produced any specific information or analyses to support their criticism. Their only reference has been to some test data at the Miliken Library and some preliminary test data on reinforced masonry.

Q I'm not sure I understand your answer completely with respect to the seven percent structural damping.

Would you relate that again with respect to the actual building tests and laboratory tests?

Well, in an attempt to summarize what I said, when we measure damping in actual buildings, like a structure or a building founded on soil or rock or some other substance, we have to measure a combined damping. The question then becomes, well, how much of that combined damping can we attribute to the structure and how much can we attribute to the soil, or how much must we attribute to the soil.

As I believe I then indicated, we find that very large amounts of damping are measured when we measure the total system, making the laboratory tests of individual structural elements which show a fraction of that total damping very credible.



I believe it shows a consistent pattern: large damping for the total system, a fraction of that, on the order of seven to ten percent, at the yield range, yield strength, for the structural damping where we're speaking of reinforced concrete.

- Q You mentioned Dr. Luco's and Trifunac's critique. Do you recall in their testimony their reference to test data taken at the Miliken Library and preliminary data on tests of reinforced masonry?
- A (Witness Kuo) Yes.

Let me respond to this one.

- Q Do you recall that reference?
- A Yes, I do.
- Q Would you give us your assessment of the Miliken Library test data, please?
- A Sure.

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Miliken Library tests forced vibration tests at very low amplitudes. Drs. Trifunac Luco, as I understand it, seem to feel that they can extrapolate this one segment of data to a systemmatic [sic] method for a separating the structural damping from the combined structure and soil damping measured in the tests. I do not believe that these limited results obtained to date are useful in our assessment of the Diablo Canyon Plant, the reasons being in the first place the tests were totally unrepresentative of the conditions that would exist in the nuclear subject to power plants strong The strains earthquake motions. caused in the Miliken Library building by the referenced tests

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were very very low compared to those that would be experienced under strong earthquake motions.

The amount of damping observed is known to depend on the level of strain and the relationship particularly of [sic] the higher strain level is nonlinear. Therefore making the extrapolation from low level tests is very difficult.

Secondly, the results and the conclusions referenced by Drs. Trifunac and Luco are as yet unpublished and so have not been subject to the peer review and the critiques by the engineering community.

- Similarly, Dr. Kuo, would you give us your assessment of the reinforced masonry test referenced by Dr. Trifunac and Luco?
- A Yes.

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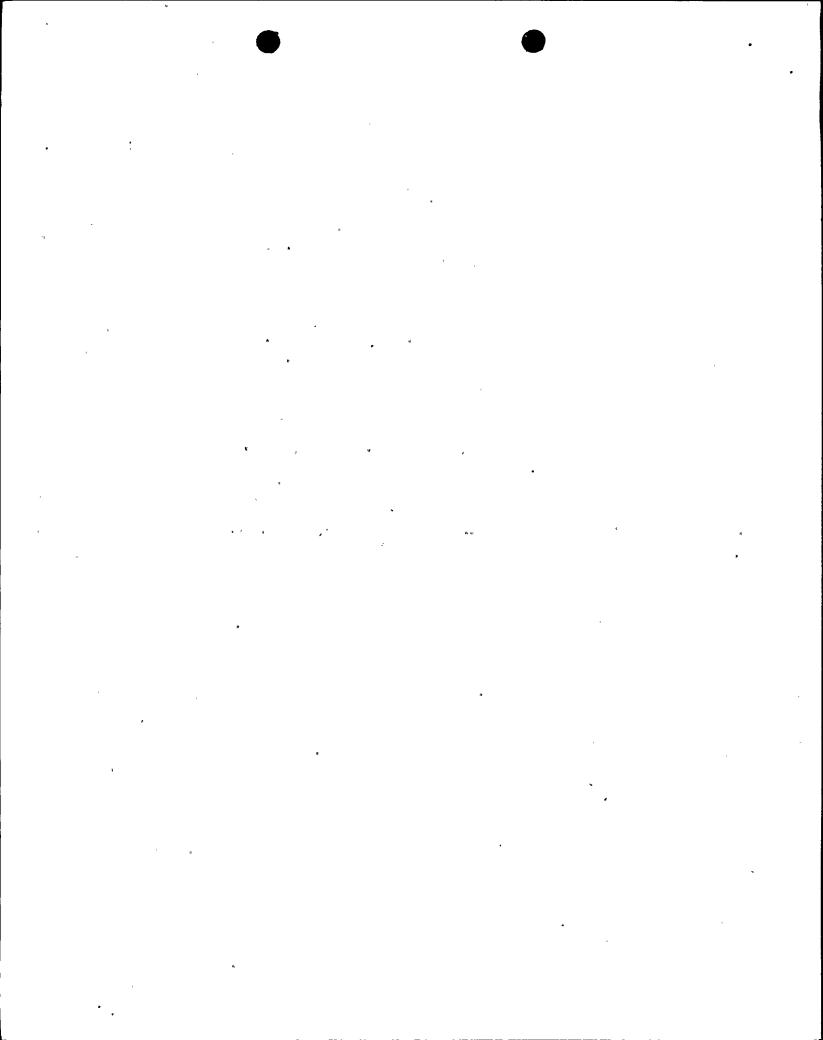
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The reinforced masonry tests appear .at this time at least to have little · relevance to damping reinforced concrete structures used plants. nuclear power any Again, the preliminary test results referenced Drs. Luco by Trifunac are as yet unpublished, and so again have not been subject to any review or any critiques by the engineering community.

Intervenors propose that both Drs. Trifunac and Luco are "concerned about safety equipment as much as they are about the structures." (J.I.P.F. 85.) Apparently, Intervenors have forgotten the uncontroverted testimony of Dr. Trifunac who states that "the structures within the complex of the plant are reasonably designed to withstand a



reasonable earthquake on the Hosgri Fault." (Tr. 9199.)
But perhaps more telling is, again, the testimony of NRC witness Knight (Tr. 9840-9841):

"Basically, however, I understand their concerns-- And as I said, we've been dealing with them for some extended period now. --as relating to their concern that the seismic input they perceive to be below tht [sic] that they would recommend or prefer, and that since that basic seismic input is less conservative than they would desire, that there may be deficiencies in equipment qualification.

"Implicit in their expressed concern appears to be the assumption that seismic, that initial seismic input to the structure is a key parameter. --or perhaps I should rephrase that: is the key parameter in the equipment qualification, when, in fact, it's only one step as I have just tried to point out in my previous testimony, one step in a process that's replete with conservatisms."

J.I.P.F. 88-100 deal with the operating basis earthquake. Although the author of these paragraphs is more generous in his citations to the record, the proposed findings are either contrary to the record or the the weight of the evidence in the record and thus must be rejected.

For the reasons outlined in the reply to J.I.P.F. 42 a finding by the Board as suggested in J.I.P.F. 88 that the Hosgri fault is capable of generating a 7.5 magnitude earthquake is improper. A 6.5 magnitude earthquake is the largest

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earthquake this fault can be expected to generate (see authorities, quoted in reply to J.I.P.F. 42, supra, p. 7).

J.I.P.F. 89 is improper because it misapplies USGS Circular 672. As the USGS made clear in its report dated April 29, 1976, (Appendix C to SER Supp. 4) the ground motion values set forth in the Circular are to

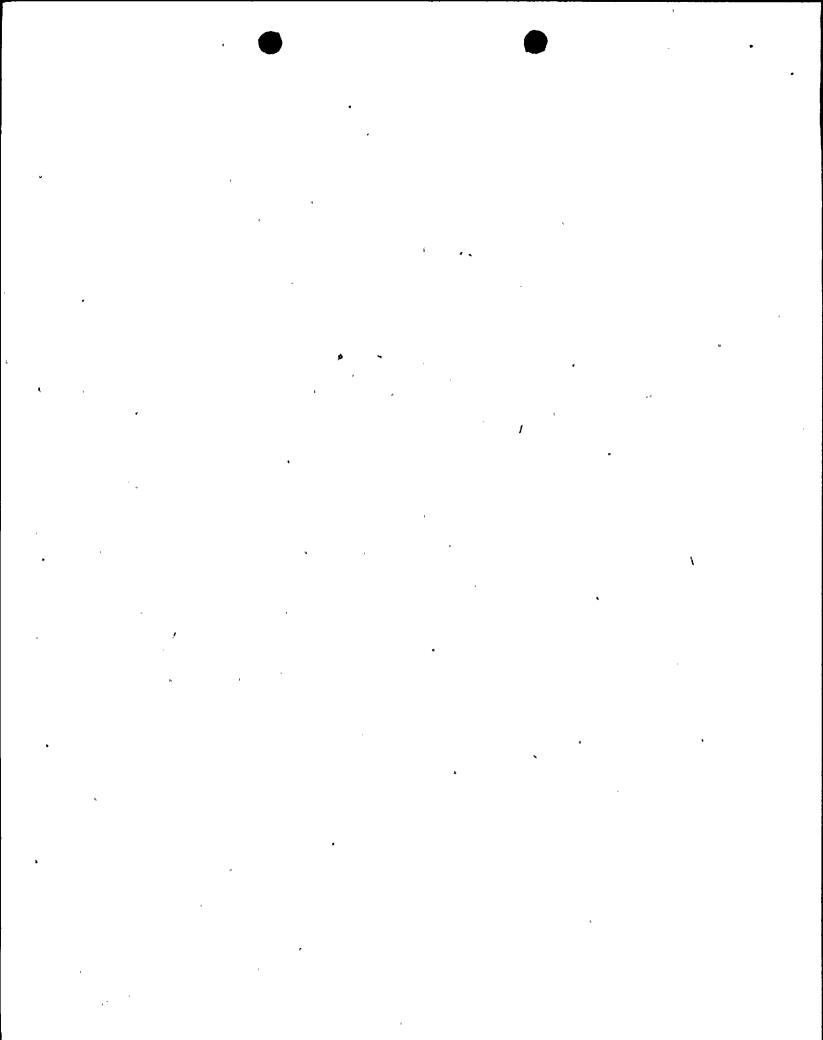
... be used to form the basis of a description of the earthquake postulated to have the potential for occurring on the Hosgri fault . . . The earthquake so described should be used in the derivation of an effective engineering acceleration for input into the process leading to the seismic design analysis [P. C-16.]

Thus using 1.15g as the SSE is directly contrary to the recommendation of the USGS and must be rejected.

J.I.P.F. 92 also is directly contrary to the evidence and must be rejected. The Diablo Canyon plant is located in an area of low seismicity (Tr. 5457).

Concerning J.I.P.F. 93, 94 and 95 Applicant fails to see what relevance they have in this proceeding. Obviously, a lower OBE is more conservative because such an earthquake (and the resulting required follow-up inspection) is more likely to happen than a larger earthquake. Also, a lower OBE is more in keeping with the definition of OBE in the regulations as "that earthquake which . . . could reasonably be expected to affect the plant site during the . . . life of the plant." (10 CFR 100, Appendix A § III(d). Moreover,

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an OBE has economic rather than safety significance. As pointed out by Staff witness Knight, the

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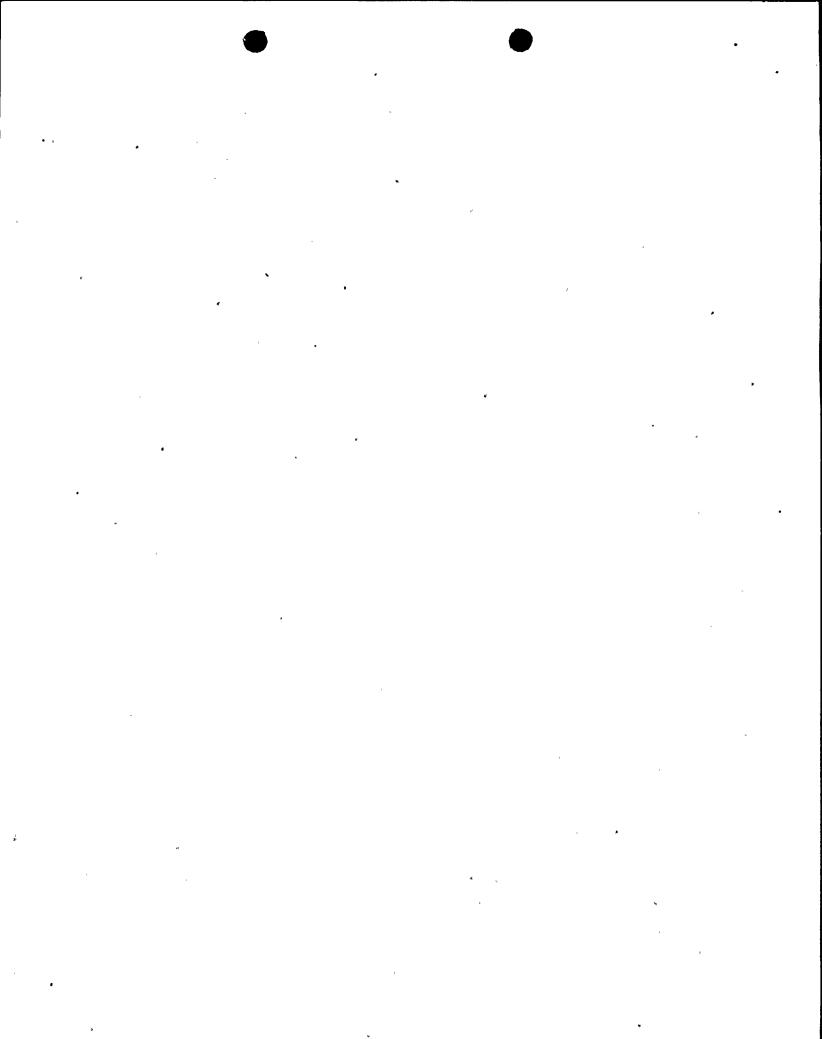
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. central question with respect to the OBE . . . is not whether the public health and safety would be adversely the OBE affected should occur, whether continued operation of the plant throughout its lifetime could be accepted without reevaluation of the plant's systems, structures components and should the OBE occur. [Knight testimony following Tr. 8697 at 6.]

Further, there was additional testimony that more often than not margins of safety are actually reduced by specifying a larger or higher OBE (Tr. 8714). Finally, there was unrefuted testimony that the OBE selected by PGandE conforms to the regulations, does not constitute an exemption or waiver of them (Tr. 8471, 8472) and has been accepted by the Staff (SER Supp. 7, pp. 2-4, 2-5). In its J.I.P.F. 95, Intervenors ignore the fact that PGandE's analysis was confirmed by an independent analysis prepared by Staff consultants, and that Joint Intervenor consultant Dr. Trifunac also performed such an analysis which agreed with the Staff's conclusion (Tr. 8424). The implication of J.I.P.F. 93, 94 and 95 is that there is an ironclad rule that the OBE <u>must</u> be at least equal to one-half the SSE. However, as cited above and in A.P.F. 88-91, the evidence is to the contrary.

The first sentence in J.I.P.F. 96 is a direct quote from one of the bits and pieces of Intervenor witness Hubbard's testimony which survived the motions to strike.



On the stand Mr. Hubbard admitted he recalled the PGandE testimony that an OBE of 60% of the SSE was in fact used for the testing of electrical equipment (Tr. 7687), and that, therefore, his sentence

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... disappears in terms of significance ... [Tr. 7845, 7846.]

Accordingly, based on the Intervenor witness' own testimony, this proposed finding should be rejected.

In J.I.P.F. 97 Joint Intervenors attempt to assign design significance to the OBE by misciting (the correct citation is Tr. 7672) PGandE testimony that in a few places in the plant's piping system the OBE was controlling.

However, this was later explained by a Staff witness to mean that in a few instances the ratio of the highest OBE stress to the OBE allowable was higher than the ratio of the highest Hosgri stress to the Hosgri allowable (Tr. 8700). The witness went on to explain that he was aware of no case where the stress in a piping system for an OBE was higher than the highest stress in the same piping system from the Hosgri event, and that in any event whether the OBE stress or the Hosgri is controlling or limiting makes no difference as long as one does not exceed the code (Tr. 8700, 8709).

J.I.P.F. 98 does not accurately reflect the evidence in the record. In the first place a vertical analysis was performed for the Hosgri event which, in effect, renders the proposed finding moot (SER Supp. 7, p. 3-22). Secondly, a



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vertical dynamic analysis was performed for the OBE for the containment structure where the structure was vertically sensitive (Tr. 7041-7056). For the auxiliary building a vertical amplification factor of 1.35 was used (Tr. 7134-7135), and for the outdoor water storage tanks a 50% amplification factor was used (Tr. 7309). With regard to the intake structure the Hosgri evaluation confirmed there was no vertical amplification (Tr. 7228). Concerning piping, vertical spectra were used and a witness testified that all piping would be within the OBE allowables if analyzed using vertically amplified spectra (Tr. 7672-7674, 8710). Furthermore, the selection of a relatively low OBE leads to further conservatisms. In any event there is no basis in the record for the proposed finding.

J.I.P.F. 99 completely ignores the fact that PGandE has developed a post-OBE inspection plan (Tr. 7477-7479). In addition, regarding the significance of so-called Category B tasks, two of which are referred to in the proposed finding, in its exhibits the Staff points out they are of lesser safety significance than the Category A tasks, can be resolved

. . . either by system alterations using available techniques and equipment or by operational modifications. . .

and accordingly,

. . . detailed information on [them] is not, in our judgment necessary . . . [Staff Ex. 12, p. vi; Staff Ex. 15, pp. 6-3, 6-4.]

....

'Conclusionary J.I.P.F. 100 must be rejected. There is nothing in the record to support the statement in the first sentence that the OBE provides an important margin of safety, and a similar statement was ordered stricken from Mr. Hubbard's testimony (Tr. 7836). In fact, the evidence is to the contrary (supra, pp. 22, 23). Furthermore, the provisions in the proposed finding regarding areas of highseismicity are not applicable because, as we have seen, the Diablo plant is located in an area of low seismicity (Tr. 5457). The suggestion that the OBE should be set at a "g" level high enough so that a post-OBE inspection will not be required' is directly contrary to the regulation, which provides that the OBE can reasonably be expected to occur during the operating life of the plant (10 CFR 100, Appendix A, § III(d)). A similar statement was stricken by the Board from Mr. Hubbard's testimony on the grounds he lacked the necessary expertise, and thus the statement is totally without support in the record (Tr. 7836). Accordingly, the last sentence in the proposed finding likewise is not supported by the record and must be rejected.

The next series of proposed findings (J.I.P.F. 101-117) deal with structural and equipment testing.

In J.I.P.F. 101, Joint Intervenors quote a portion of Supp. 7 of the SER. However, the quote omits the Staff's conclusion, which puts the matter in the proper perspective.

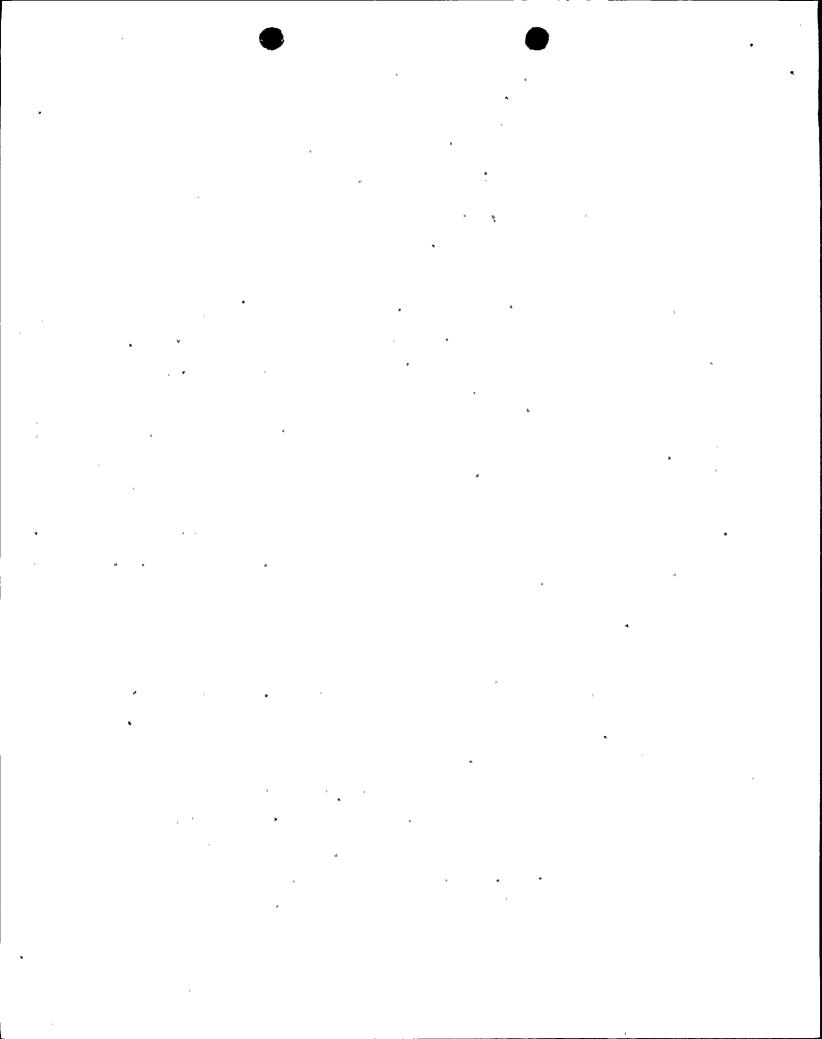
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As discussed above . . . we believe these relaxations are justified. The other usual conservatisms still apply. Thus, based on our review, we conclude that, taken as a whole, the general methods and procedures outlined above are conservative and provide for adequate safety margins in the design of Category I structures. [P. 3-23.]

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Furthermore, the Staff testified it did not lower its standards during review of the Diablo Canyon application (Tr. 8712).

J.I.P.F. 102-104, 110, 112 and 113 deal with the tau effect. Applicant's witness Dr. Blume testified that applicable regulations, standard review plans and guidelines require that an appropriate analysis be done and that in his opinion the tau effect was an appropriate analysis (Tr. 7119). He also testified that tau had been around for a long time and was generally known in the industry (Tr. 10,123). Finally, he pointed out that in making the tau reduction he had been very conservative and ignored two factors which would have reduced the ground motion effects even further: contiguous foundations and embedment (Tr. 10,125, 10,126). In addition, Applicant witness Dr. Seed showed how the tau effect for Diablo can be derived by waves arriving at less than perfectly vertical, by nonhomogeneity of the rock structure upon which the foundation rests, and by taking credit for soil structure interaction affects which were not included in the rigid base analysis procedure used for design (Tr. 10,152-10,160, 10,162-10,166). In conclusion Dr. Seed testified that in his opinion the tau reduction

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used by Drs. Blume and Newmark was both justified and scientifically defensible (Tr. 10,167). In addition the Diablo Canyon plant has been the subject of the most extensive Staff review of any nuclear facility ever undertaken (Knight testimony following Tr. 8697 at 54). In any event the numbers quoted in Proposed Findings 103, 104, 110, 112, and 113 are not significant because they only represent values at the zero period. As one gets out into the spectral curves the amount of tau is reduced, and at four-tenths or five-tenths seconds tau disappears, which is at the period certain structures, such as the auxiliary building, become affected (Tr. 7167-7170; Blume testimony following Tr. 6100 at 42-44). Also, as explained earlier, the Newmark spectrum or the Blume'spectrum was used depending upon which was more conservative (Tr. 10,126). In any event, there is ample evidence in the record to support the use of tau'in the Diablo Canyon design.

J.I.P.F. 105-111 deal with damping. The damping values used by Applicant were those permitted in Regulatory Guide 1.61, which the Staff concluded were appropriate for the reanalysis of the Diablo Canyon Plant (Tr. 9819; SER Supp. 7, pp. 3-19). The damping values in Regulatory Guide 1.61 are conservative and in reality it has been found that damping measured in the actual total building-soil system is much higher than 7% (Tr. 9820-9822, supra, p. 15 et seq.).

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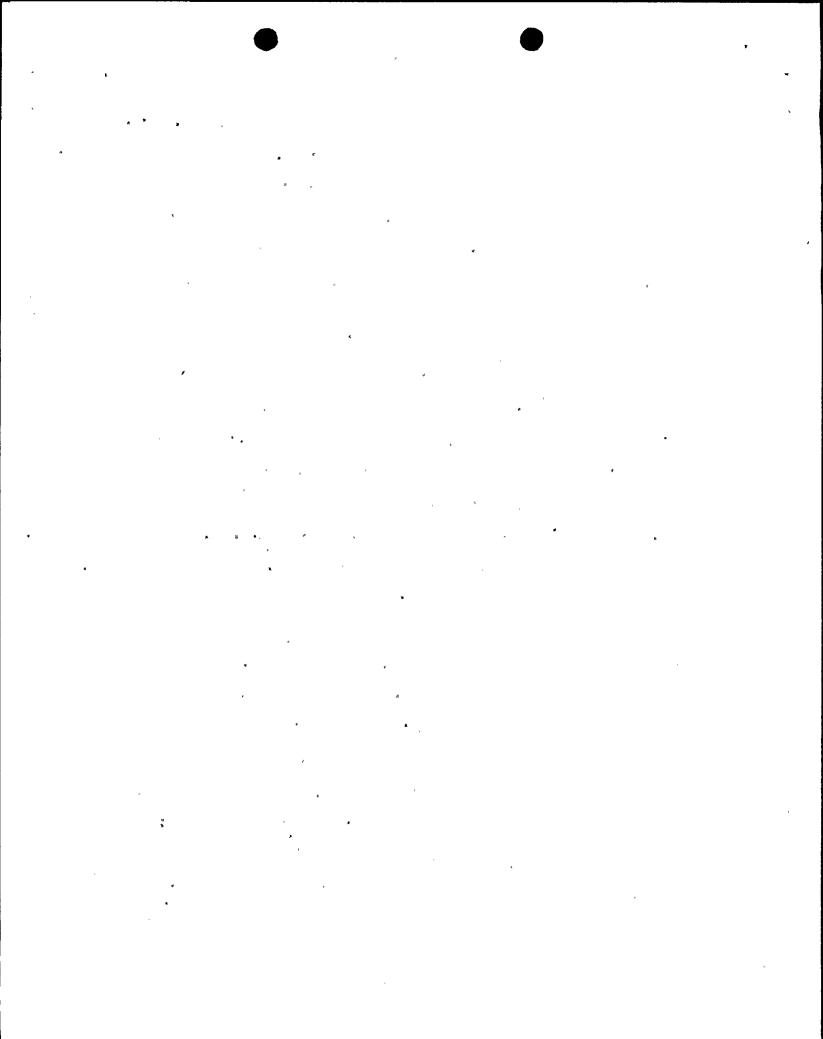
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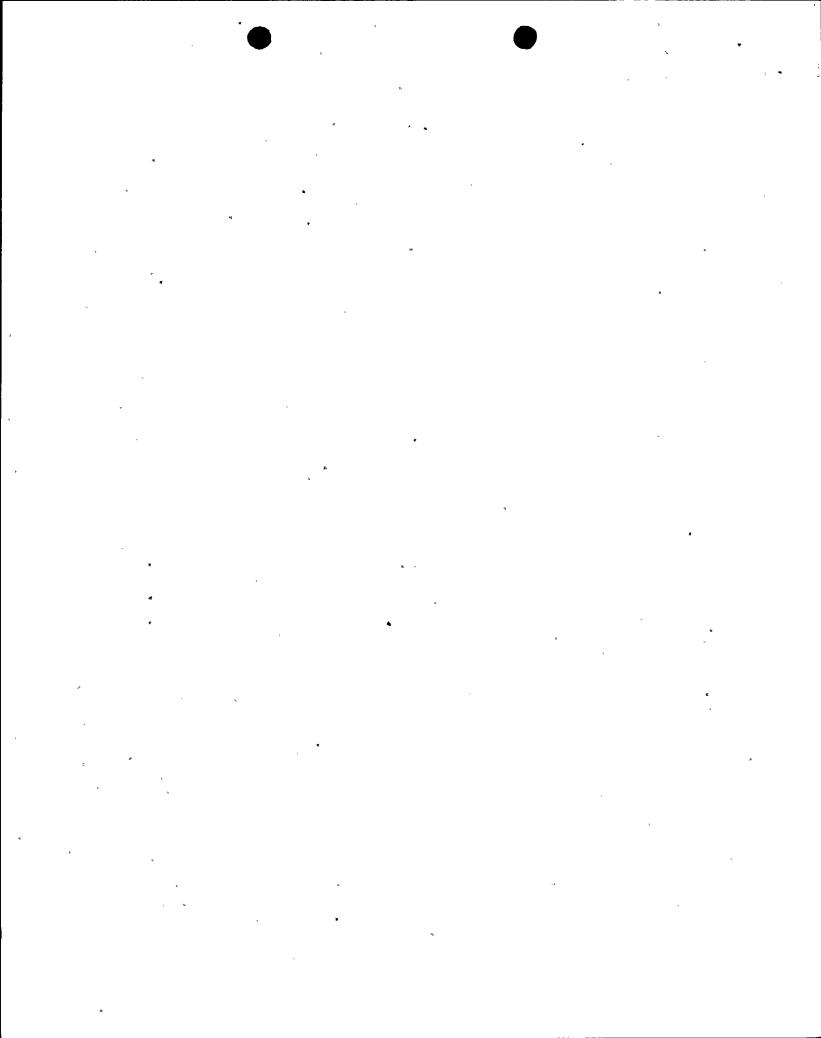


In Proposed Findings 114 and 115, Joint Intervenors discuss the use of average values of material properties to determine allowable stress levels instead of code specified minimum material properties. However, the use of actual values is acceptable for the Hosgri analysis because an actual structure is involved as opposed to a proposed structure. Codes and standards are appropriate for the latter since there are no actual values. In the evaluation of a completed facility, it is appropriate to use the properties that actually exist (Tr. 6944, 6945, 7075, 7141-7144, 7211-7214, 7249, 7260-7262, 7300, 8712, 8713). This practice was acceptable to the Staff (SER Supp. 7, pp. 3-20; Knight testimony following Tr. 8697 at 13, 14; Tr. 8713). In short, the use of actual values was thoroughly justified.

Doint Intervenors in Proposed Finding 116 attempt

To find fault with PGandE's qualification of electrical equipment on the grounds that there is no record that the effects of aging have been considered and that seismic qualification testing may have introduced significant common failure modes not readily detectable. These issues were dealt with definitively in A.P.F. 107. Joint Intervenors have cited nothing which refutes the authorities cited in paragraph 107, and these authorities provide a more than sufficient basis to reject J.I.P.F. 116.

The first J.I.P.F. 117 refers to Regulatory Guide 1.92. An Applicant witness explained why the Guide was not

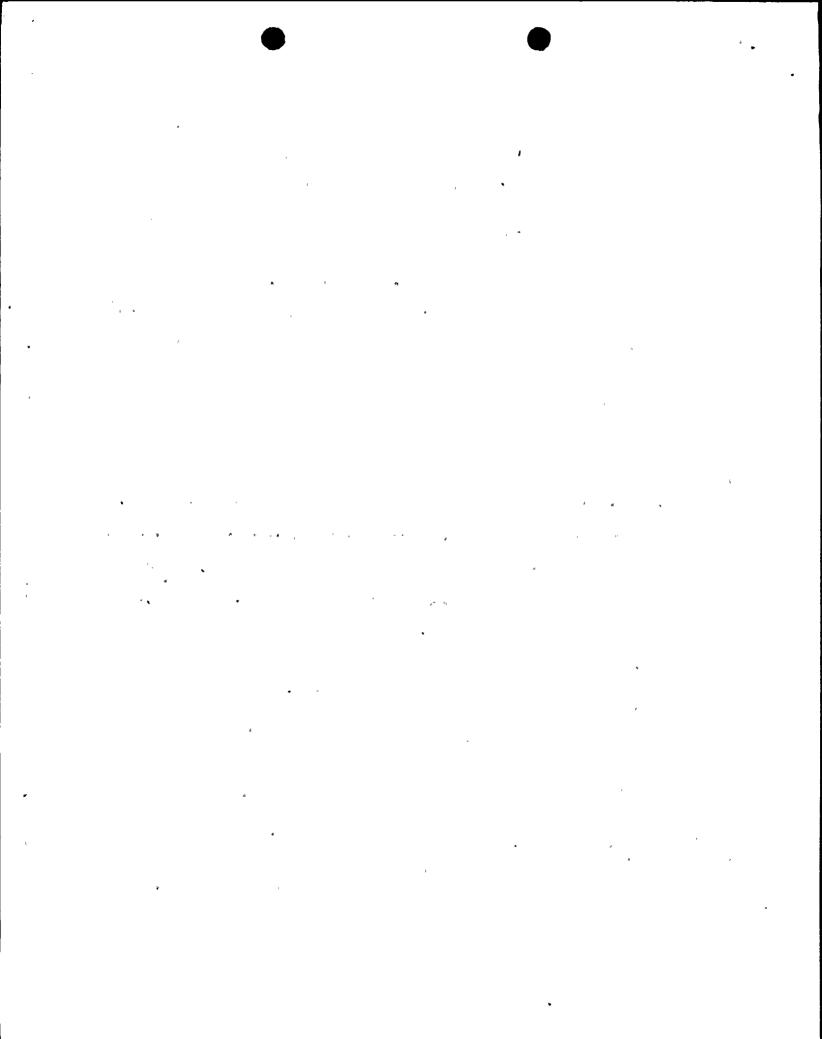


applicable to all items PGandE analyzed (Tr. 7593, 7594).

The status of Class B Task Action Plans has already been discussed and the reasons why the Staff believes they need not be dealt with at this time (supra, pp. 25, 26).

With regard to the second J.I.P.F. 117, while the study requested by the Staff showed that the Regulatory Guide 1.92 method of combining responses gives greater loads at some locations than the method used by Applicant, the study also showed that at other locations the method used by Applicant produced greater loads than the Regulatory Guide 1.92 method. The Staff reviewed the results of Applicant's study and considers the method used by Applicant to be acceptable (SER Supp. 7, pp. 3-52, 3-53; SER Supp. 8, pp. 3-23-3-28).

int Intervenors Proposed Findings 118-124 deal with the Staff treatment of generic safety issues. The findings proposed by Joint Intervenors are surplusage because the Board has already ruled, correctly, that the Staff has made an adequate presentation concerning the generic safety issues (orders dated February 26 and March 12, 1979). The affidavits and exhibits submitted by the Staff (Staff Exs. 11, 12, 15, 16, 17) meet the tests set forth in the River Bend (6 NRC 760) and North Anna (8 NRC 245) proceedings. Further, as the Board noted (Tr. 10,054), the North Anna decision does not mandate a hearing. Although the Appeal Board has already disposed of these issues in its two uncontested



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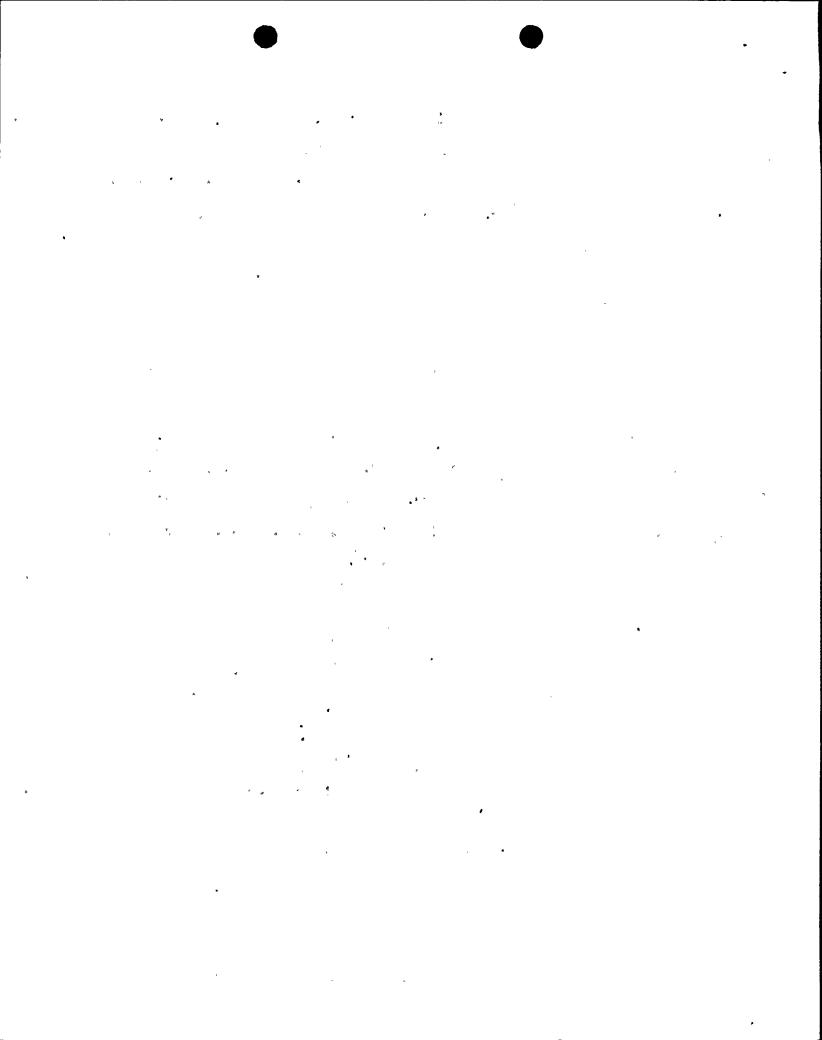
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orders, in the interest of correcting the misleading implications of Joint Intervenors' Proposed Findings on generic safety issues, Applicant offers the following comments:

- (a) With regard to Tasks A-43 and A-44, they are specifically dealt with by the Staff in Exhibit 15, which sets forth the Staff's evaluation and its conclusion that issuance of operating licenses for the units is unaffected by these ongoing generic tasks (Ex. 15, pp. 7-30-7-34). Thus, the matter has been resolved.
- There is no requirement that the Staff quantitatively evaluate the cumulative risk due to all generic activities under consideration as suggested by Joint Intervenors on page 59. In fact, the Commission in a statement dated January 18, 1979, accepted the conclusion of the Risk Assessment Review Group that the error bounds on estimates of probabilities are understated where there is an inadequate (See statement attached to L. Dow Davis' letter data base. dated February 14, 1979.) The NRC in a memorandum dated December 11, 1978 (also attached to the Davis letter dated February 14, 1979) noted that, with certain exceptions not applicable here, the Staff had not made use of WASH-1400 in the licensing process. Furthermore, in a letter dated November 21, 1978, served upon all parties, the Staff stated it had not relied upon its evaluation of Applicant's seismic risk assessment in making its decisions regarding licensing Diablo Canyon.



- (c) Footnote 21 mentions Tasks B-63 [sic] and B-34. The deferral of handling Category B tasks has already been discussed (supra, pp. 22, 23). Task Â-15 also mentioned in the footnote is not relevant to this or any other licensing proceeding (Staff Ex. 15, pp. 4-2, 4-3).
- with information to assess the cumulative impact on public health and safety of all generic activities has already been rejected by the Board in ruling on a contention proposed by Joint Intervenors (Order dated May 25, 1977). In addition, the generalized request that the Board be furnished with information on all generic activities "unresolved, under consideration, or grandfathered" is the type of request that was rejected in River Bend. That case held that a connecting link must be supplied between a Task Action Plan and the safety of a facility before the matter need be considered by a licensing board.

To establish the requisite nexus between the permit or license application and a TSAR item (or Task Action Plan) it must appear both generally (1) that undertaken or contemplated project has significance insofar safety reactor under review is concerned; and (2) that the fashion in which the appli-, cation deals with the matter in question is unsatisfactory. [6 NRC 773.]

Having failed to establish the requisite nexus, the Joint Intervenors proposed finding 120 must be rejected.

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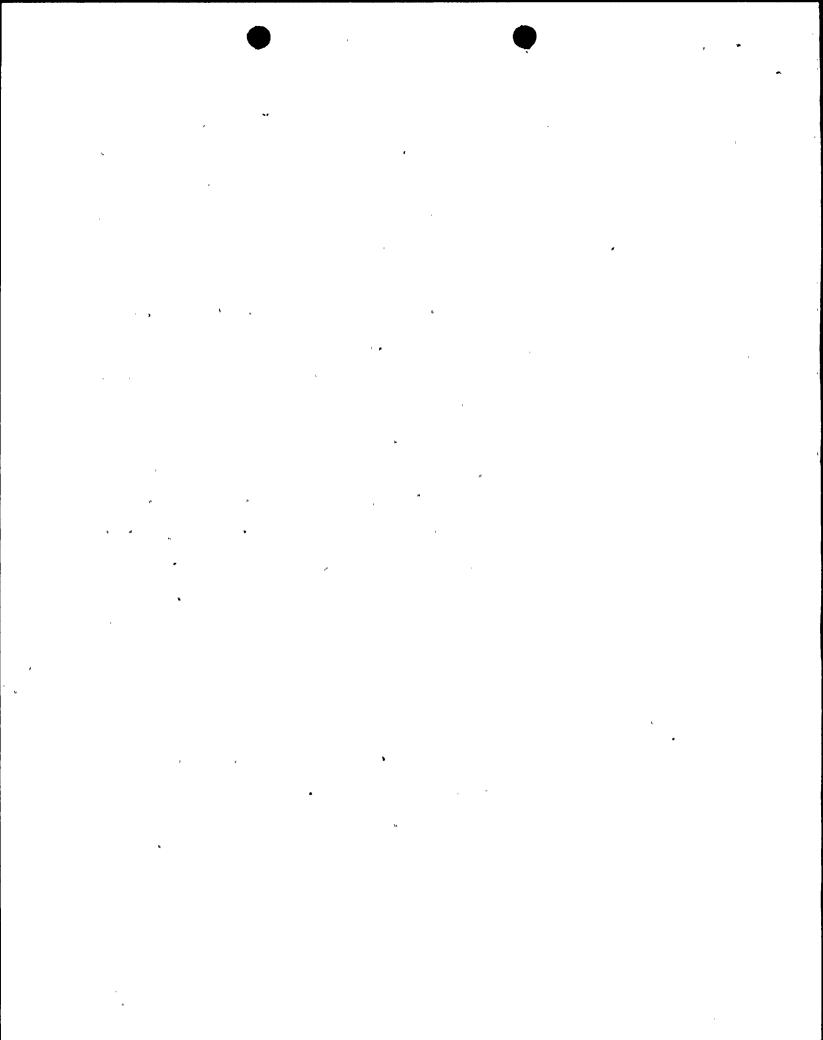
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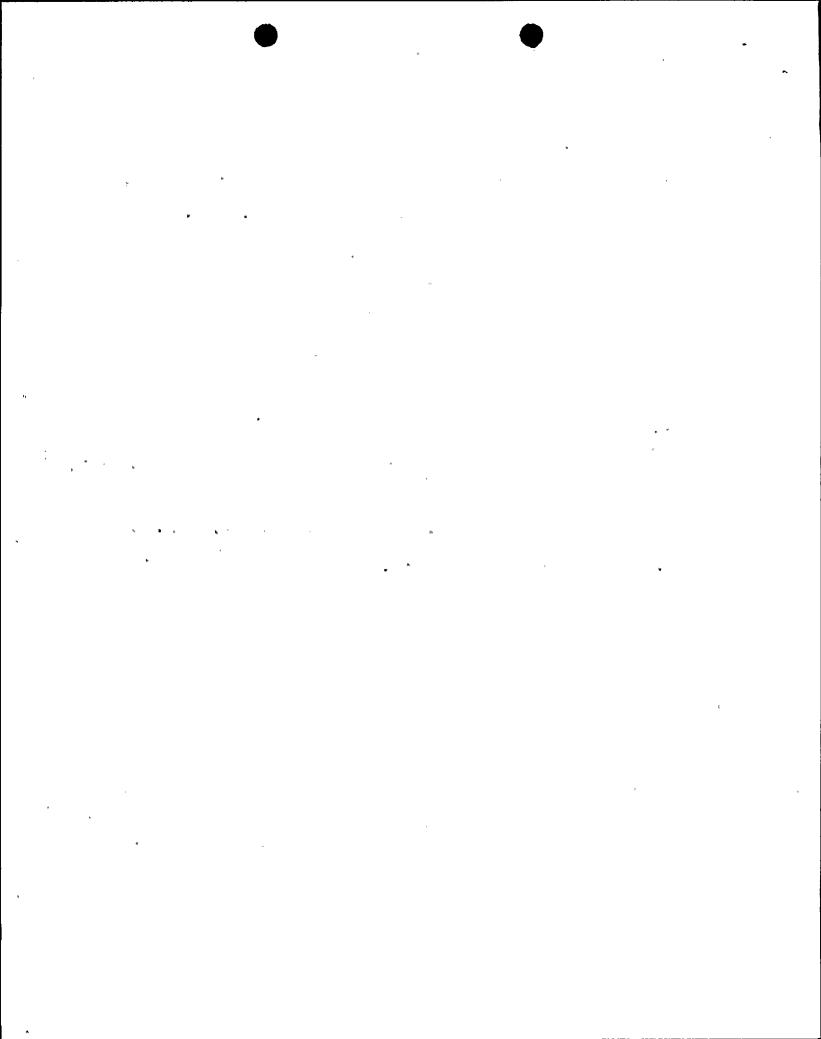
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(e) Joint Intervenors complain that Task Action Plan A-33 was dismissed by the Staff as not relevant to the informational requirements of <u>River Bend</u>. The Staff's position is proper because that case applies to the Staff's procedures for reviewing safety questions as opposed to environmental issues (6 NRC 764).

- mental reports is set forth in the proposed Annex to
 Appendix D to 10 C.F.R. 50. Appendix D was revoked in 1974
 and replaced by 10 C.F.R. 51. However, the revocation of
 Appendix D did not affect the status of the proposed annex
 (Offshore Power Systems 8 NRC 194, 210). Class 9 accidents
 are considered in the Annex wherein it is concluded that
 such accidents are so remote that their environmental risk
 is "extremely low" and thus they need not be considered in
 Environmental Reports (Annex, p. 2). Thus, contrary to
 footonote 22, Class 9 accidents were considered in connection
 with the Diablo Canyon environmental review.
- (g) With regard to ATWS (Proposed Finding 122), the Staff's reasoned basis for permitting operation of the Diablo Canyon units in the interim period while final resolution of the matter is before the Commission is set forth at pages 12-15 of Staff Exhibit 16.
- (h) Joint Intervenors' Proposed Finding 123 is puzzling for in Exhibit 15 the Staff clearly states the basis for its position that detailed information on the



remaining Category B, C, and D tasks is not necessary.

Briefly, it is based upon the fact that any of these tasks which have safety significance can be resolved by system alterations or operational modifications (Staff Ex. 15, p. 6-3). Thus, they need not be completed prior to licensing of the Diablo Canyon units.

Respectfully submitted,

JOHN C. MORRISSEY
MALCOLM H. FURBUSH
PHILIP A. CRANE, JR.
ARTHUR C. GEHR

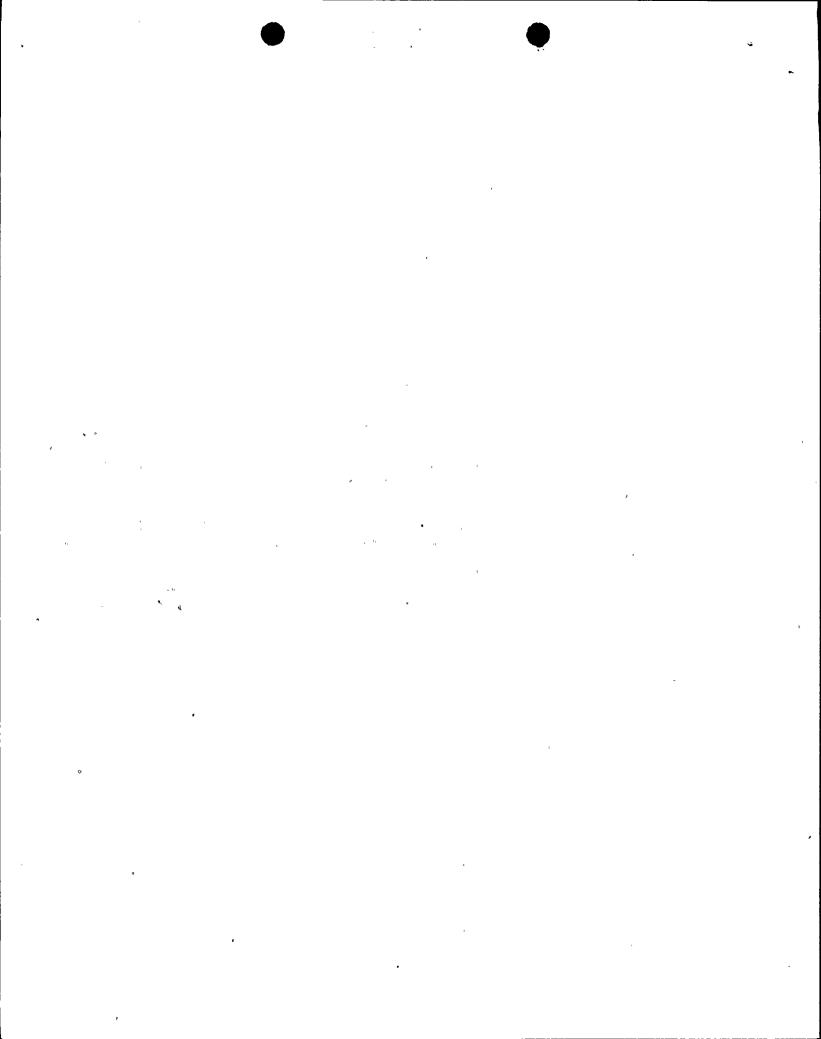
BRUSE NORTON

J Jakan

Attorneys for \
Pacific Gas and Electric Company
77 Beale Street
San Francisco, California 94106

(415) 781-4211

Dated: April 9, 1979



BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)

PACIFIC GAS AND ELECTRIC COMPANY)

Units 1 and 2)

Diablo Canyon Site)

Docket No. 50-275-OL Docket No. 50-323-OL

ERRATA AND SUPPLEMENT
PROPOSED FINDINGS OF FACT
AND
CONCLUSIONS OF LAW
SUBMITTED BY
PACIFIC GAS AND ELECTRIC COMPANY

The Proposed Findings of Fact and Conclusions of Law submitted by Pacific Gas and Electric Company should be amended to read as follows:

1. PGandE Exhibits (p. 11)

Near Field Strong Motion Records Not Included in Hanks and Johnson data (slide)

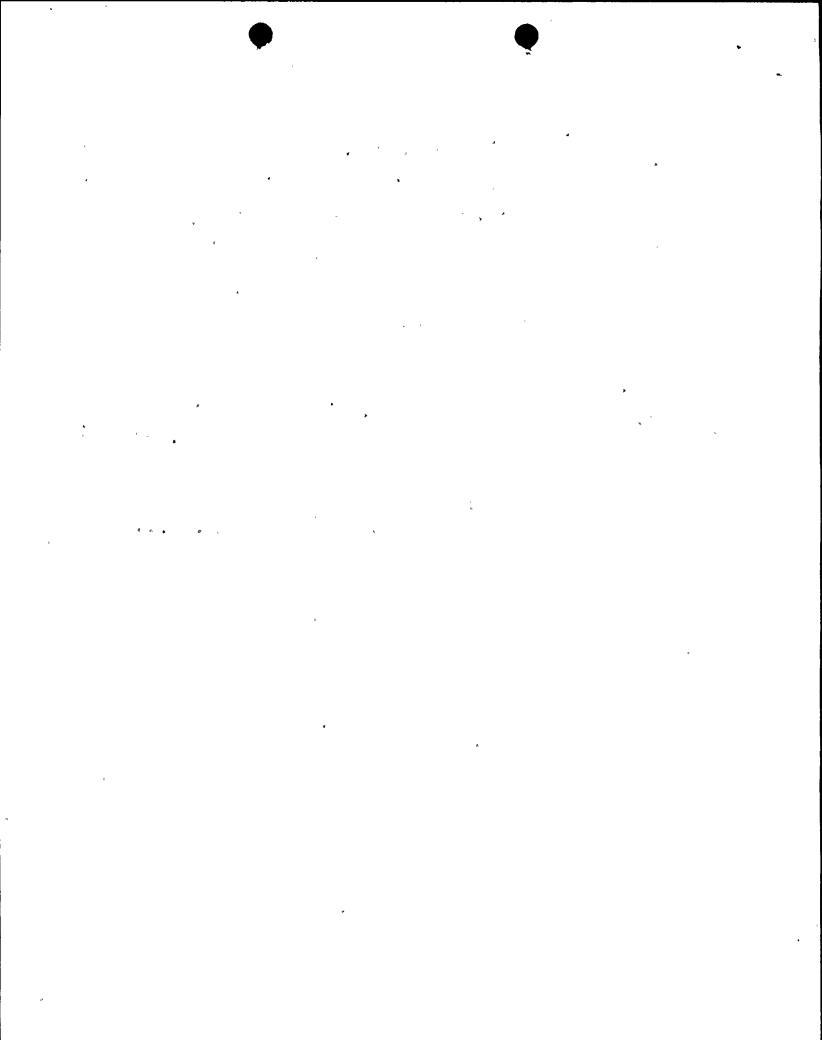
Peak Horizontal Accelerations Recorded in Naghan, Pacoima, Koyna and Gazli Earthquakes (slide)

2. Staff Exhibits (p. 16)

Affidavit of Allison and Thadani Relating to ATWS

NRC Staff Motion Re Radon Testimony and Perkins Record

- 3. Page 31, line 10 delete "magnetic"
- 4. Page 32, line 26 delete "and finally", insert "then"
- 5. Page 33, line 1 delete "Gabriel", insert "Gabriel and finally to the San Andreas again"



- Page 64, line 1 delete "rests", insert "rests and by taking credit for soil structure interaction effects which were not included in the rigid base analysis procedure used for design."
- Page 88, line 25 delete "appreciable", insert "applicable"

Respectfully submitted,

JOHN C. MORRISSEY MALCOLM H. FURBUSH PHILIP A. CRANE, JR. ARTHUR C. GEHR

BRUCE NORTON

Attorneys for

Pacific Gas and Electric Company

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San Francisco, California 94106 (415) 781-4211

Dated: April 9, 1979

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In the Matter of

PACIFIC GAS AND ELECTRIC COMPANY

Units 1 and 2

Diablo Canyon Site

Docket No. 50-275-OL Docket No. 50-323-OL

CERTIFICATE OF SERVICE

The foregoing document(s) of Pacific Gas and Electric Company that (have) been served today on the following by deposit in the United States mail, properly stamped and addressed:

Elizabeth S. Bowers, Esq.
Chairman
Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. Glenn O. Bright Atomic Safety and Licensing Board U. S. Nuclear Regulatory Commission Washington, D. C. 20555

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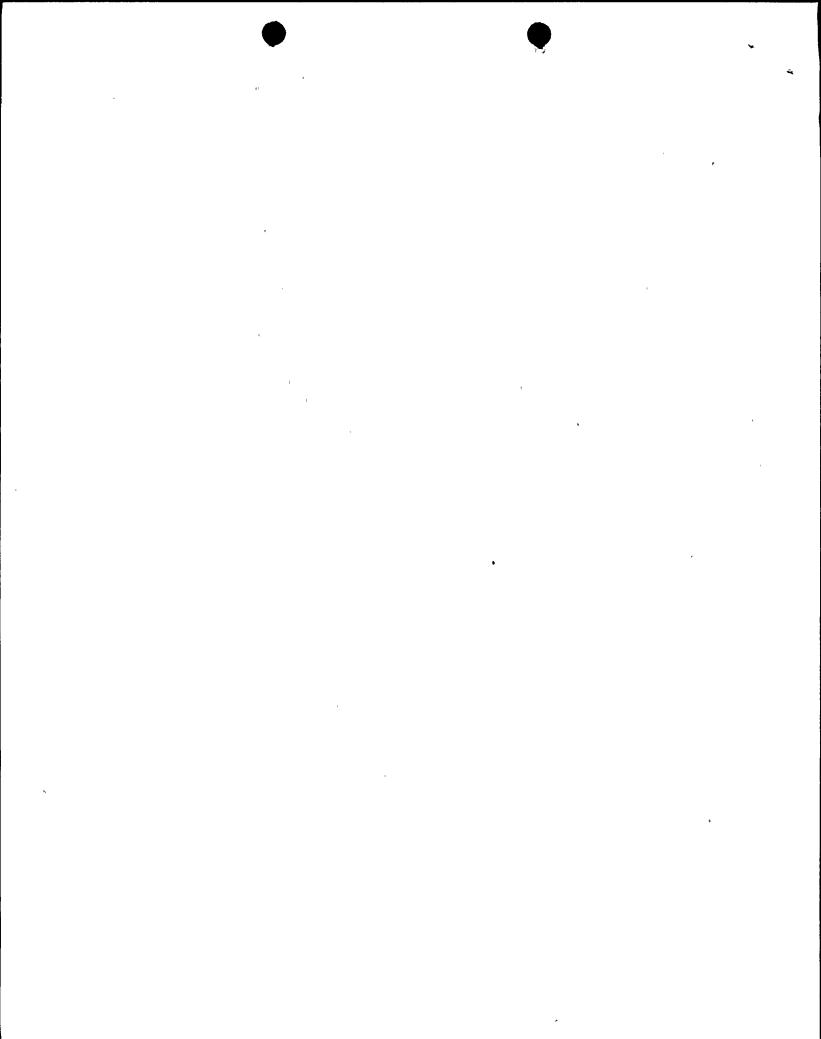
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Chairman
Atomic Safety and Licensing
Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555



Chairman
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Secretary

U. S. Nuclear Regulatory Commission Washington, D. C. 20555

Attn.: Docketing and Service Section

James R. Tourtellotte, Esq.
Office of Executive Legal Director
BETH 042
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

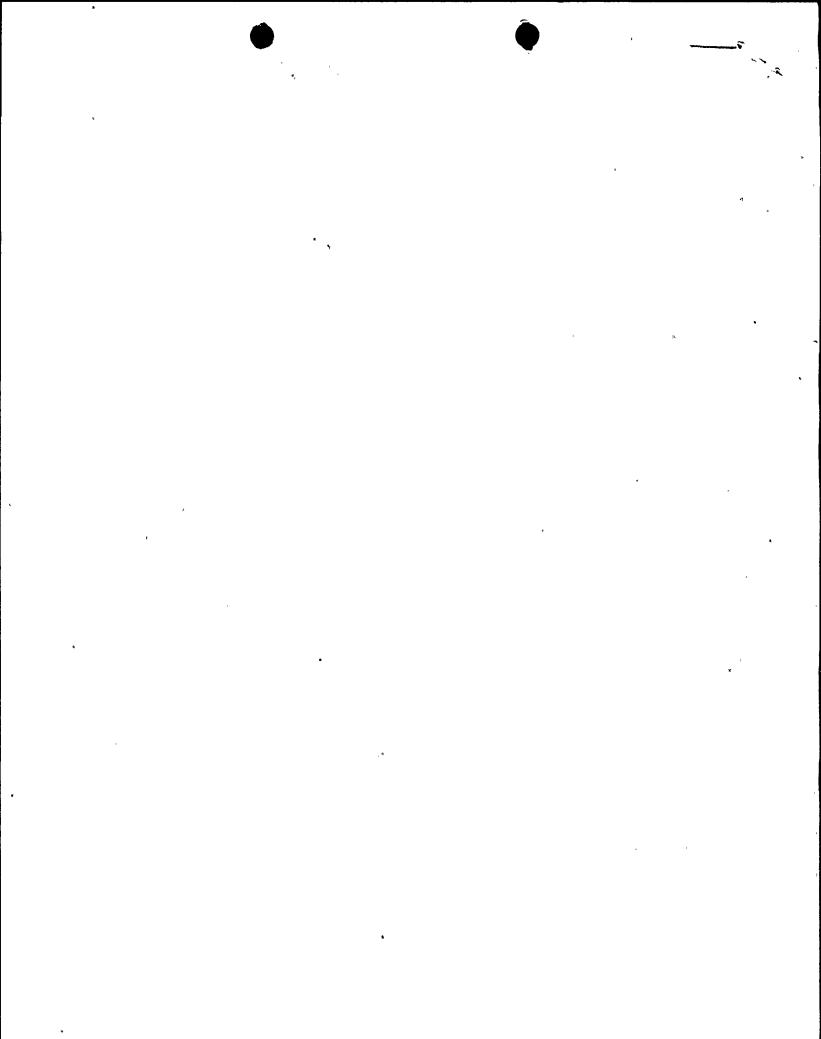
Mr. Richard Hubbard MHB Associates 366 California Avenue Suite 6 Palo Alto, California 94306

Philip A. Crang, Jr.

Attorney

Pacific Gas and Electric Company

Date: April 9, 1979



WHAT are you gona do about the Nuclear Power speading allover. well, we wanted to do something here in California to draw attention to the instance threat to human life created by the Diablo Canyon nuclear Facility. We must do all we

can to help stop the uncontrollable, buildup of deadly nuclear wasys

that threaten humanity itself

Can you people see that!

Its getting Bad.

are some questions AND I

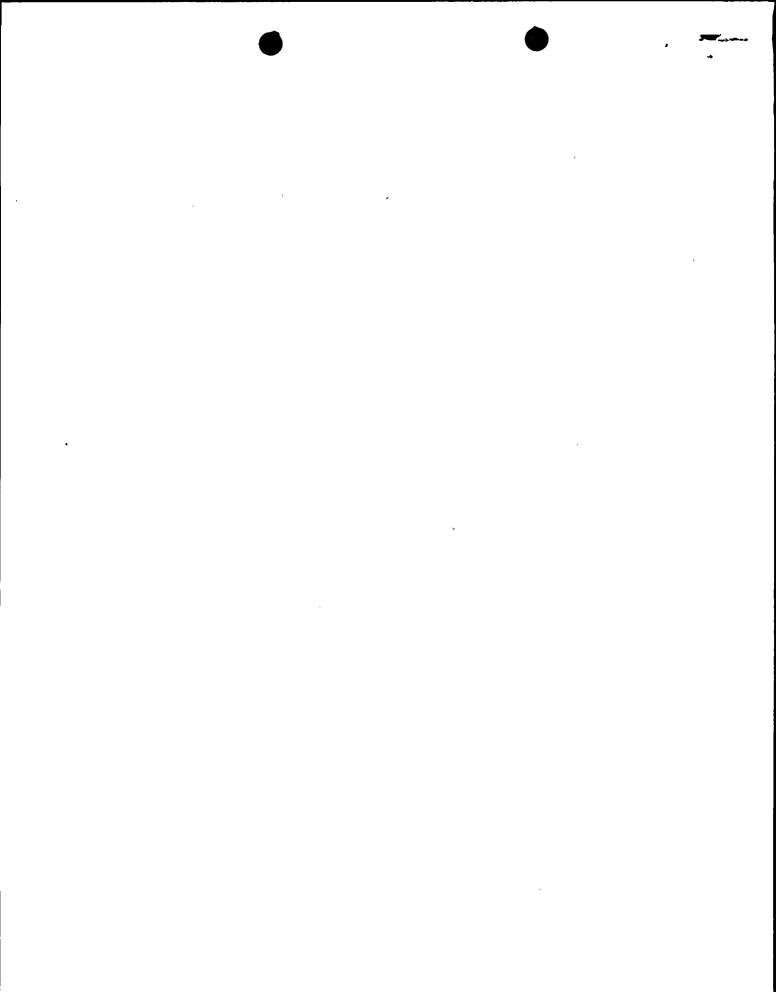
like some answers. would

1. WHAT will PG+E do for an encore after the earthquake? Will it be able to purchase another environmentifree of cancer-causing radioactivity, for San Luis Obispo & Santa Barbara countiè will it be able to replace the men and wemen & children who lived

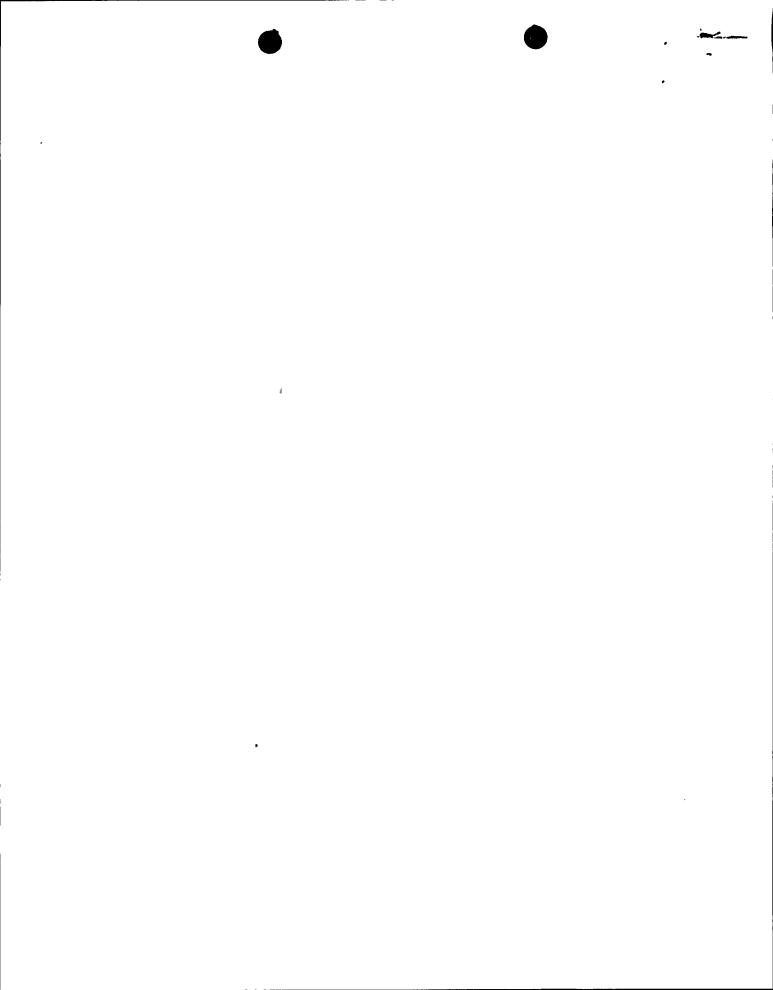
Krow

4 197.9

\$60 CREEKSIDE cir. DAMAPILLO, Calif.



Tard 30, 1979. an Las Obisoo, Ca. Newdear Regulatory Commission Licensing Board For Diable Campon Washington, D.C Dear Commissioners. Had I only bestered to the environmentalists a few years ago! I have never held a real defenite position or Mucher Energy until the Pennsylvania accedent. Theat this is just like Diable Congon in design except Dicolo is built on an earth quake fault that it was not designed for. 1415 not right for you to have this Kies of Leath power over our community. Please do not allow Diablo Conyon to operate 1 Acknowledged by card. 4/4 - Nancy of Richard Manzer



Berkeley, Caly. 94703

March 17, 1979 Muclean Regulatory Commission 1990 N. California Blod, Suite 202/ Walnut Creek, Calif. 94596 Dear Sirs and Mesdames: As a citizen concerned with the Well-being of both this planet and its inhabitants, I urge that do Not approve operating lisences for the power plants at Diable Canyon - or the one at San Onofere. It is essential that plants not be built in earthquake country Flet alone be allowed to operate. Furthermore, there must be full public input at the beginning of the construction liscensing process. The fine of the construction liscensing process. the plant is built, the question of its operating safety wake with the financial ruin of refusing to liscence it for operation. That refusal must take place in these two cases - as it did it the

past year in Instria for a dont already built. But future operating of the liscensing process - must, have public input at the start. The state and its public must retain their right, to regulate location of plants and dumping grounds. Nobody wants any of this deadly business in their own backyard - and federal status of a regulatory commission is therefore inappropriate. Take a Stand with the State Energy Commission: for from moling your jobs obselete, the combined strength of state and federal support of nuclear -waste free Onvikonment will assure the reduction of a huge amount of Jean in our people and our children. Carolyn Edwards

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of

PACIFIC GAS AND ELECTRIC COMPANY

Docket Nos. 50-275 OL

50-323 OL

Units 1 and 2)

ORDER RELATIVE TO NRC STAFF'S MOTION FOR ADDITIONAL TIME

On April 4, 1979, the Staff requested five additional days, to April 10, to file its proposed findings due to the fact that technical advisors were unavailable because of the Three Mile Island, Unit 2 matter. The Staff stated that neither Applicant nor the Joint Intervenors objected.

For good cause stated, the motion is granted.

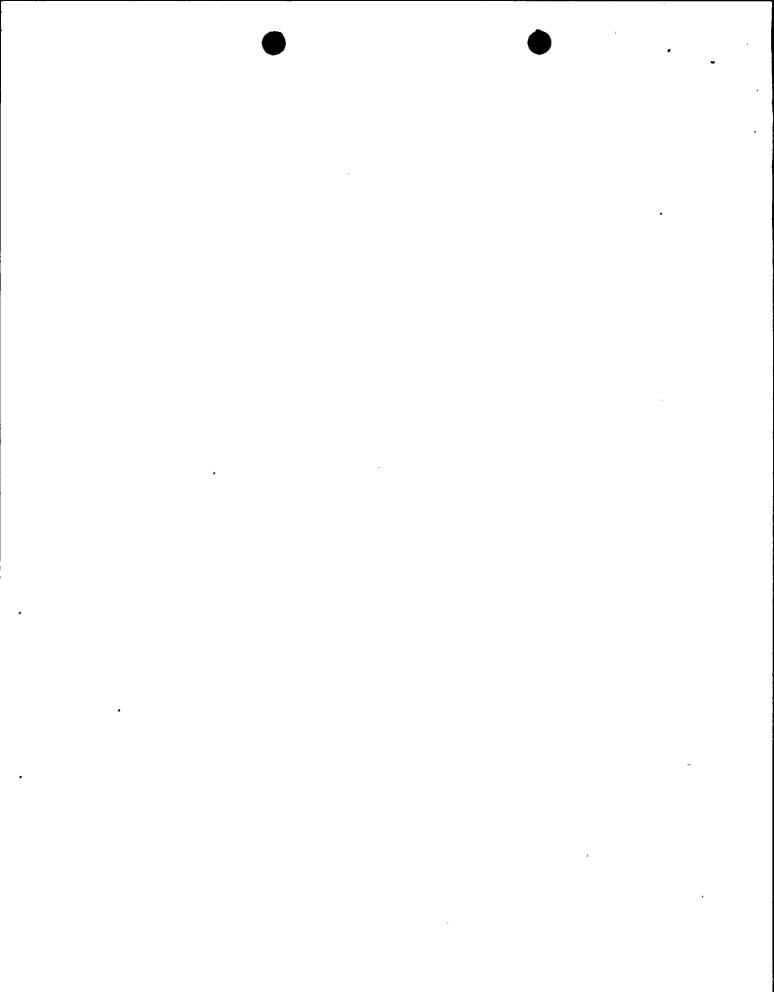
IT IS SO ORDERED.

FOR THE ATOMIC SAFETY AND LICENSING BOARD

Elizabeth S. Bowers, Chairman

Dated at Bethesda, Maryland This 5th day of April 1979.





UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION.

In the Matter of)

PACIFIC GAS AND ELECTRIC COMPANY)

Docket No.(s) 50-275

50-323

(Diablo Canyon Nuclear Power)

Plant, Units 1 and 2)

CERTIFICATE OF SERVICE

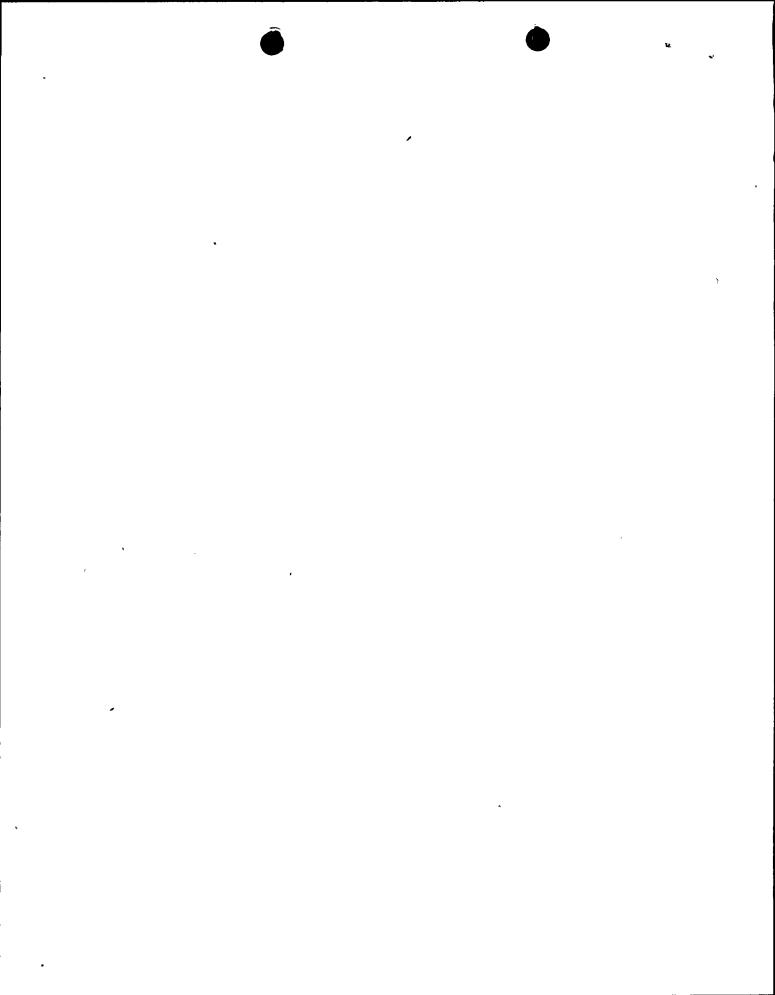
I hereby certify that I have this day served the foregoing document(s) upon each person designated on the official service list compiled by the Office of the Secretary of the Commission in this proceeding in accordance with the requirements of Section 2.712 of 10 CFR Part 2 - Rules of Practice, of the Nuclear Regulatory Commission's Rules and Regulations.

Dated at Washington, D.C. this

(ith day of Cliftic 1979.

TETALL LOCALINATION OF THE COMMISSION

43 ettes of apiain 4 4- Sa's Order Relation to NIRC Staff's Mation for Additional Time dtd 4/5/19



UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

In the Matter of))

PACIFIC GAS AND ELECTRIC COMPANY) Docket No.(s) 50-275

(Diablo Canyon, Units 1 and 2))

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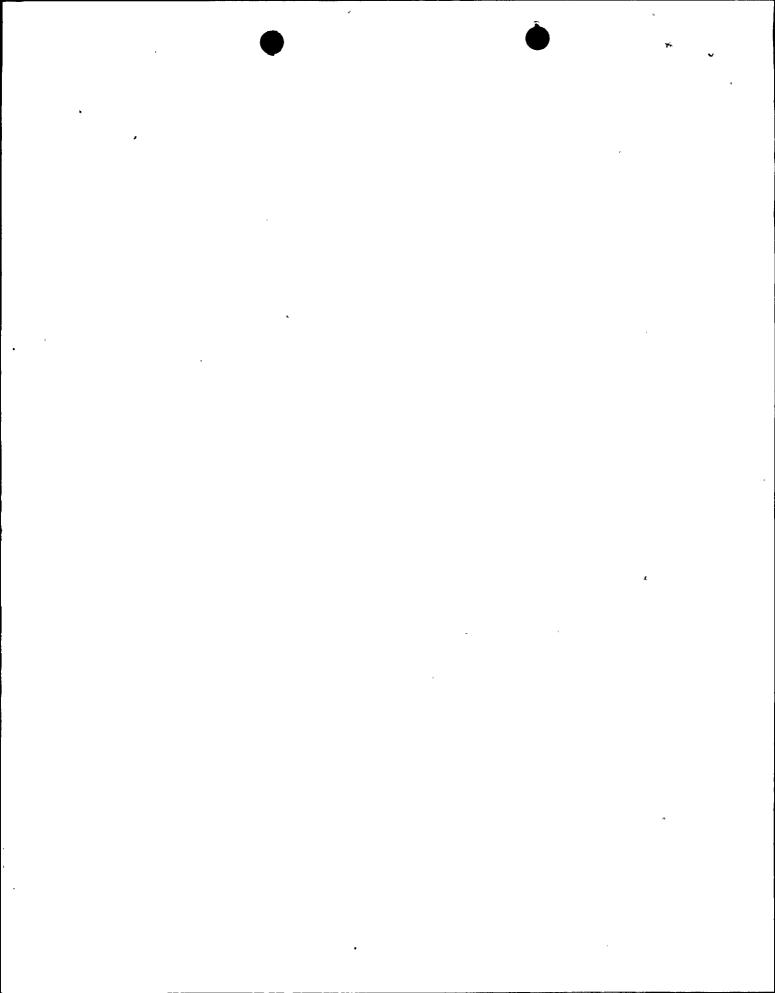
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1990 North California Bouleyard, Suite 2
Walnut Creek, California 94596



Board and parties continued

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UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

Before The Atomic Safety & Licensing Board

-4/5

In the Matter of:

PACIFIC GAS & ELECTRIC COMPANY (Diablo Canyon Nuclear Power Plant, Units 1 & 2)

Docket Nos. 50-275 OL 50-323 OL

ERRATA SHEET TO JOINT INTERVENORS' PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW

Listed below are corrections to the Joint Intervenors' PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW, submitted in the above captioned case on March 25, 1979.

Page Line	Reads	Should Read
Table of Contents	VI CONCLUSIOS	VI CONCLUSIONS
1 FN 1	generate, at	generate at
1 FN 1	thermal, with	thermal with
1 FN 1	ready to fuel land.	ready to fuel load.
3 . 2	and Luco,	and Luco
3 FN 2	sponsor the experts	sponsor experts
3 FN 3	7 NRC 989, 91-2	7 NRC 989, 991-2
4 3	Register on Ocotber	Register on October
4 12	State of California; State Polytechnic	State of California, State Polytechnic
4 FN 5	7 NRC 989, 92-93	7 NRC 989, 992-3
7 20	January 1, 1979	January 1, 1978
8 2	of the Safety issues	of the safety issues

Page	Line	Reads	Should Read
9	2	2A-1	2A-I
9	6	the Diablo Canyon Site:	the Diablo Canyon Site"
9	12	its impact on Overall	Its Impact on Overall
10	13	In Evidence (no reference)	6926 .
10	14	In Evidence (6926)	8114
12	1	Jahn's	Jahns' .
12	3	Jahn's	Jahns!
15	8	GandH Previously	G and H Previously
17	5	reananlysis	reanalysis
17	18	informed the Office of	informed the Office of General
20	FN 12	INTERPRETIVE	INTERPRETATIVE
21	4	and, suggested	and suggested
21	12	would issue	could issue
23 ,	5	running with 7 kilometers	running within seven kilometers
24	10	equivalent to 0.04g.	equivalent to 0.40g.
24	FN 19	earthquake potential	earthquake based on the maximum earthquake potential
24	FN 19	- or "g" value,	- or "g" value -
25	2	would not withstand 0.50g.	would withstand 0.50g.
25	8	0.5 g used as a zero	0;50g used as a zero
25	21	To this time,	Up to this time,
26	5 '	supplement, designated	supplement designated
26	7	reanalysis, referenced	reanalysis and referenced
27	4	maximum credible eathquake	maximum credible earthquake

Page	Line	Reads	Should Read
27	17	7.5 Magnitude is	7.5 Magnitude earthquake is
28	1	offshore, and underwater	offshore and underwater
28	20	to the 1906, 7.8 to 8.2 Magnitude	to the 1906 San Francisco earthquake - 7.8 to 8.2 Magnitude
30	5	Graham/Dickerson/Hall	Graham/Dickenson/Hall
30	5	continous,	continuous,
30	6	thorough-going	through-going
30	6	San Gregoria	San Gregorio
30	9	one of an echelon	one of en echelon
30	21	in terms of step rates	in terms of slip rates
31	18	This continous zone	This continuous zone
31	19	meters in legnth,	meters in length,
32	1.3	7.5 Magnitude earthquake -	7.5 Magnitude earthquake or greater -
33	12	noted in our review	noted in the review
33	18	the 14 miles magnitude	the 7.3 Magnitude
34	3	and probable fault of	and probable faulting of
34	13	position, because	position because
35	6	with acceleration velocities	with accelerations, velocities,
35	11	acceleration displacement.	accelerations, and displacement.
35	16	for large earthquakes.	for large earthquakes in the near field.
36	9	earthquakes of 79.5	earthquakes of greater than 5.5
36	14	than 7. Magnitude	than 7.0 Magnitude

Page	Line	Reads	Should Read
37	4	for accleration, velocity	for accelerations, velocity,
37	13	extrapolations for 7.5	extrapolations contained in USGS Circular 672 for 7.5
37 ·	14	justifiable and rationale.	justifiable and rational.
38	15	argue that a case of	argue the case that
38	17	We process the total reduction as discrete considerations. However, structural response	We are not dealing with a single reduction, but with three reductions. Structural response
40	6	as Magnitude 7.5	a Magnitude 7.5
40	17	at 1-3 (emphasis added)	at 1-3 (emphasis added))
40	25	In his AIC Code,	In his ATC Code,
41	15	that the tests results .	that the test results
42	2	This last spectrum generates true histories to be used to test equipment.	This floor response spectrum in turn is used to generate time histories to test equipment.
43	23	(no reference)	(Licensing Board Exhibit No. 2(J))
48	10	Staff than no functional	Staff that no functional
50	3	at least 0.275g horizontal	at least 0.375 horizontal
52	4	27%.	16%.
53	4	[Insert] before (Tr., at 7131-7132)	[The reduction for the Newmark spectra for Tau effect was from .75g to .55g at the zero period acceleration, a reduction of approximately 27%.]
56	3	introduced significantly	.introduced significant

Respectfully submitted,

David Y. Luschalus

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UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

Before The Atomic Safety & Licensing Board

.



In the Matter of:

PACIFIC GAS & ELECTRIC COMPANY (Diablo Canyon Nuclear Power Plant, Units 1 & 2)

Docket Nos. 50-275 OL
50-323 OL

CERTIFICATE OF SERVICE

I hereby certify that I have this 5th day of April, 1979 served copies of the foregoing Joint Intervenors' ERRATA SHEET upon all of the parties listed below by depositing copies thereof in the U.S. Mails, first class, postage prepaid to the following parties of record:

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Atomic Safety & Licensing
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